City of Cambridge.

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THE

MAYOR'S ADDRESS

AT THE

Organization of the City Government,

January 7, 1884,

AND THE

ANNUAL REPORTS MADE TO THE CITY COUNCIL,

FOR THE YEAR 1883.

BOSTON:
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THE MAYOR'S ADDRESS.

GENTLEMEN OF THE CITY COUNCIL: —

In assembling together to-day for the purpose of assuming, severally, the trust of administering the municipal affairs of Cambridge for the year upon which we have now entered, we find the city increasing in numbers, health, wealth, educational advantages, and in whatever else may promote the happiness of our people. And is it not "very right, and our bounden duty," that we should give thanks to the Great Governing Power of the Universe for the blessings of the past, and reverently ask for wisdom and guidance, as we have just done, to enable us to discharge our respective duties with an honest purpose and an enlightened discretion?

It is with much gratification that I personally express to my fellow-citizens my heartfelt thanks for the unusual honor of a fourth consecutive election to the Mayoralty of this city; and in this respect I can do no less than to pledge my best endeavors to fulfil the duties incumbent upon me, as I have tried to do in the past, with a reasonable disregard to mere individual interests, or my own personal comfort, both of which ought always to be secondary to the public good.

NECROLOGY.

During the year past there have been several deaths among our prominent citizens in official positions, each of whom deserves some especial mention. Ex-Mayor Ezra Parmenter commenced his public service among us, as a member of the Common Council as early as the year 1858; and he was elected to the Board of Aldermen, at which he served in 1863, 1864, and 1866. He was our Mayor in 1867, and next represented Cambridge in part in the House of Representatives of Massachusetts, in 1871–1872, and again, in the Senate, in 1874 and 1875. Of late years he had been a valued member of the State Board of Health, Lunacy, and Charity; of our own Board of Overseers of the Poor; and Commissioner for Cambridge in charge of West Boston, Craigie's, and Prison-Point Bridges; and while holding the last two offices he died. Dr. Parmenter was conscientious and faithful in the discharge of his every duty; genial and affable in his intercourse with others, the lowly and the exalted alike; and was one of those rare and kindly natures whose presence was ever grateful.

The Hon. George Putnam Carter was also a worthy citizen, whose loss is deeply felt. He was originally elected to the Common Council during the period of our civil war in 1862 and 1863, and continued his service to the city in the Board of Aldermen in 1864 and 1865. He was elected to represent Cambridge in part in the House of Representatives in 1865 and 1866, was a member of the Executive Council in 1879

and 1880, and lastly on the Board of Health, Lunacy, and Charity. For twelve years past Mr. Carter was an interested member of our Water Board, and always bore an onerous part in the management of affairs entrusted to that Board. He was for seven years its president, and occupied that position at the time of his death. The resolutions passed by the Water Board, in September last, which are incorporated in the report to be submitted to you among the Annual City Documents, set forth his valuable characteristics, and pay a just meed of recognition to the ability and fidelity with which he always discharged his official duties.

Col. Edmund B. Whitman was an old citizen of Cambridge, who in his earlier years was a teacher of youth in the Hopkins Classical School. When the civil war broke out he entered the service of our country, and did efficient work in his sphere. After the close of the war he was charged with important duties relating to the National Cemeteries, in which sleep so many of "the fallen brave" of the Union cause. Col. Whitman was serving well upon his second term as one of the principal assessors at the time of his decease. He was a man of very positive convictions and sturdy honesty, and was influential towards carrying out some improvements in the work of the Board of Assessors, and which are now in successful operation.

Mr. William T. Raymond, Inspector for the Water Board, — and, very recently and suddenly, Mr. William Dallinger, Deputy Collector of Taxes, — have also passed away. Although in less prominent, but at

the same time quite responsible, positions, they fulfilled their respective trusts with honesty and faithfulness; and their ability and many virtues should justly be held in respectful memory by the City Council and the citizens at large. Quite recently still, Mr. John Conlan, for two years a member of the Common Council, and at last a member of the School Committee, and one of the Trustees of the Public Library, has also been called away by death. All of these departed officials were endeared to me by their probity and geniality of character, as well as by many acts of personal kindness.

FISCAL.

In regard to the most important matter of the financial condition of municipal affairs it is my pleasure to present a favorable showing. From the books of the Treasurer and Auditor I am able to give the following as the result on November 30, 1883: —

RECEIPTS AND EXPENDITURES.

Cash on hand, Nov. 30, 1882	$5,399 09
Cash received from all other sources to Nov. 30, 1883, inclusive	2,714,582 63
Total receipts for the year	$2,719,981 72
Total expenditures for the year . . .	2,718,353 15
Cash balance, Nov. 30, 1883	$1,628 57

The appropriation for 1883 was as follows: —

To be raised by taxation	$800,000 00
Added subsequently	173,890 66
Estimated revenue	282,503 69
	$1,256,394 35

LIABILITIES (OTHER THAN THE FUNDED DEBT).

State tax	$44,835 00
County tax	32,760 00
National Bank tax (non-residents)	5,626 08
The Dowse Institute trust fund	10,000 00
The Sanders Temperance trust fund	10,000 00
The Daniel White Charity trust fund	5,000 00
The Fay Library trust fund	1,000 00
The Cemetery fund, for perpetual care of lots	5,250 00
Temporary loan	155,000 00
	$269,471 08

ASSETS.

Cash in treasury	$1,628 57
Bills receivable, secured by mortgage on real estate	13,015 33
Due from Commonwealth (State aid to soldiers)	12,958 00
Due from Commonwealth for support and burial of paupers	716 24
Due from Commonwealth (corporation tax)	46,889 02
Due from Commonwealth (National Bank tax)	18,906 41
Surrendered estates and salable city lands (estimated),	183,443 58
Uncollected water bills	658 90
Uncollected taxes of 1882 and 1883	78,195 98
Miscellaneous bills	2,053 00
Total	$358,465 03

FUNDED CITY DEBT.

Bonds outstanding	$2,450,000 00
Sinking Fund	1,120,317 19
Net city debt	$1,329,682 81

FUNDED WATER DEBT.

Bonds outstanding	$1,423,500 00
Sinking Fund	496,896 95
Net water debt	$926,603 05

THE FUNDED DEBT COMPARED.

The amount of the city and water debt, Nov. 30, 1883, as compared with the same debt, Nov. 30, 1882, is as follows, viz.: —

	1882.	1883.
Gross funded debt	$4,533,700 00	$3,873,500 00
Less amount in both sinking funds	1,974,650 26	1,617,214 14
Net gross debt	$2,559,049 74	$2,256,285 86
Decrease of gross funded debt, Nov. 30, 1883		$302,763 88

Although the expenses of almost all the departments of the government were increased last year over those of the year previous, yet, with great care and economy, the rate of taxation was enabled to be kept down to the comparatively low rate of $16.40 per thousand dollars. And to do this was the great aim of the Finance Committee. It recommended in the original order the raising by assessment of $877,000; but the City Council, after full deliberation, cut this sum down to $800,000, and this was done to ensure the result in the tax rate just mentioned.

A full explanation of the difficulties attending the management of the finances during the year just closed, and of the success resulting from the prudent care exercised by the Finance Committee, will be found in their report, to be presented to you at an early day.

THE TRUST FUNDS.

I would renew my recommendations of former years to the effect that the several Charitable Trust Funds as well as that for the perpetual care of lots in the Cambridge Cemetery, each of them now represented only as a floating liability of the city, should exist in such a distinct and tangible form as to enable such funds to earn an interest directly; thereby relieving us from our present obligation to raise it by an annual tax on the people; and that a sinking-fund should be established so as to accomplish that purpose.

ADDITION TO SINKING-FUND OF WATER-WORKS.

For a series of years, extending back to the year 1865, there has been a surplus of receipts from the water-rates, that is to say, a net amount of cash has been received over and above the entire expense of managing the works, including therein the statute percentage to the sinking-fund, and the interest on the bonded water debt. These several surplus amounts are by law payable to the sinking-fund, in addition to the regular percentage above referred to; but since 1865 they have been diverted from their proper use, merged instead with the regular funds in the treasury, and used for current municipal expenses. (For instance, in 1865, the amount was upwards of $16,000; in 1868 it was $10,000; in 1870, $11,000; in 1871, $12,000; 1872, $13,000; 1873, $14,000; 1876, $26,000; and in 1880, $12,000.) These several amounts, with the interest thereon, now aggregate just $200,000. I am happy to

say that at the close of the past year the City Council acknowledged the debt and ordered the execution of a note for that amount, from the City to the Trustees of the Sinking-Fund of the Water-Works. This fund will hereafter receive the benefit of the above-named addition, by the annual interest of $8,000, which is four per cent. on the said amount thus gained.

In this connection it will not be inappropriate for me to authoritatively explain certain irregularities — not, indeed, intentionally wrong, but surely illegal — which sprung up during the administration of 1880. I do this in no unkind or selfish spirit, and I certainly should not allude to it at all, if a mistaken and misleading statement relative thereto had not recently been made public. You may the more clearly comprehend this matter if I first refer to the fiscal situation at the close of the financial year, on November 30, 1879. At that time there was left in the Treasury after the payment of bills for twelve months: —

The sum of		$58,882 07
The State tax assessed that year was,	$17,385 00	
National Bank tax (non-residents) assessed that year was . .	8,832 83	
County tax assessed that year was .	25,116 52	
Abatements and discounts . .	1,071 46	
Invalid tax titles	132 94	
Interest on city and water loans .	2,410 00	
Release of titles	566 49	
Refunds of water-rates . . .	83 78	
One-quarter license fees due the State,	3,876 50	
		56,475 52
Balance		$2,406 55

In short, an amount was raised by taxation in the year 1879, sufficient to pay the State, County, and National Bank tax (of non-residents), together with all other bills contracted during that year; and, after paying those amounts, the sum of $2,406.55 was left as a cash legacy to the administration of 1880.

At the close of the financial year 1880 there was left in the Treasury the sum of $29,742.27.

The State tax assessed that year was	$52,155 00
National Bank tax (non-residents)	5,581 11
County tax	26,208 53
Abatements and discounts	1,191 04
Invalid tax titles	690 78
Interest on city and water loans	695 00
Refunds of water-rates	37 16
One-quarter license fees due the State	5,423 95
Mill-pond purchase	10,000 00
Wright & Potter Printing Co.	35 00
Refunded taxes to Belmont people	1,370 54
Cemetery land	412 00
Work begun on Fresh Pond	2,915 00
Balance of Boston water-pipe connection	400 00
	$107,115 11
Deduct cash left in the Treasury	29,742 27
Balance	$77.372 84

This balance represents a portion of the debt contracted by the administration of 1880, but no funds having been left by that administration to meet it, the amount was accordingly paid by the succeeding one of 1881.

In my judgment it was clearly illegal to misappropriate funds collected for a specific purpose, as was done in the cases of the amounts due the State and County, above shown; and I cite the following extract from the Assessors' Warrant for 1880 to verify the observation I have made: —

To William W. Dallinger, *Collector of Taxes for the City of Cambridge, in said County of Middlesex:* —

Greeting: —

In the name of the Commonwealth of Massachusetts, you are hereby directed and required to levy and collect of the several persons and corporations named in the list herewith committed to you, each one his respective portion therein set down, of the sum total of said list, namely: —

For the amount of $52,155.00, it being the whole of said city's proportion of the State tax levied upon said city in accordance with the Act of the Legislature, approved on the 10th day of May, A.D. 1880.

For the amount of $26,208.53, it being the amount assessed upon said city as its proportion of the tax for the County of Middlesex, as per warrant, dated April 6th, 1880.

For the amount of $733,000.00, it being the amount voted and granted by the City Council of said Cambridge, by an order approved March 6th, 1880, to pay the charges and appropriations for the current municipal year, and assessed by us in pursuance thereof; and

For the amount of $5,557.44, it being the balance of tax assessed on Bank Shares held by non-residents and exempts, and not included in the valuation of said Cambridge.

And you are to complete and make up your account of the whole sum, and pay over the same, as follows: —

On or before the 10th day of December, A.D. 1880, to the Treasurer of the Commonwealth, the sum of $52,155.00, and you will hold the sum of $5,557.44, subject to State charge, in accordance with the provisions of Chapter 315 of the Acts of 1873.

On or before the last day of December, A.D. 1880, to the Treasurer of the County of Middlesex, the sum of $26,208.53, and the balance you will retain, as Treasurer of said City.

By this it is apparent that these sums due the State and County respectively for taxes, and which, in our city, are collected substantially by the 10th of October of each year, of right ought to be paid over to the State and County Treasurers in the early days of the succeeding financial year; and, to enable the City Treasurer so to do, the cash balance on the 30th of each November should be, *at the least*, equal to the amount of such taxes.

A very misleading declaration has been made, that one State and County tax having been paid within the financial year of the administration of 1880, therefore a second one could not be expected to be paid. The fact is, the only one paid was that of the year 1879, and that with sums left by the preceding administration, as I have heretofore shown, to pay it; while the same tax bills assessed for the year 1880 were not paid in that financial year, but were left for the succeeding one, and with but $29,742.27 to pay them with.

In truth, the warm praise bestowed upon the administration of 1879, in the Mayor's inaugural address of the succeeding year, was well deserved. It reads as follows: "The results of the last year must be eminently satisfactory; with no increase of our city debt, our expenses all met from our receipts, taxes one dollar per thousand less than the previous year, and nearly sixty thousand dollars in the treasury to commence the new year with, — this is a record that the last City

Council and all our citizens are to be congratulated upon. I need not add it is an example for us well worthy of imitation as far as possible."

It is, indeed, a source of deep regret to many of our citizens that it was *not* found possible to follow so excellent an example, rather than to burden the succeeding administration, as was done, with a load equal in amount to $1.50 per thousand on our valuation of property.

Is it a satisfactory explanation of this matter to say that it is a new departure in book-keeping, when that would imply most plainly that one administration may anticipate the resources of a succeeding one, in order to pay debts belonging to itself to pay?

Rather let us follow the good, old-fashioned way of 1879, by providing for debts justly due out of funds specifically raised for that purpose, notwithstanding the fact that by the law and the calendar the actual payment of those obligations may happen to fall within the succeeding financial year to be made.

By so doing each municipal administration receives the benefit of the items of revenue called National Bank and Corporation taxes belonging to itself. The administration of 1879 received from that source $39,448.13; that of 1880 received, of what rightly belonged to it, $41,650.89, and reaching forward into 1881 anticipated also that source of revenue, and appropriated $61,785.82 that belonged to the last-named year. Of the new system of book-keeping which has thus been offered in defence of this course, though publicly endorsed by some past officials, I feel bound to

urge the abandonment, as it is a practice undeniably unlawful, and clearly fraught with troublesome tendencies.

It is also said that the uncollected taxes left over from the year 1880 represent assets with which to pay the bills left over from that year. In answer I reply, that all uncollected taxes and any payable bills of a given administration are proper and legitimate assets of its successor. The administration of 1880 received, in the form of uncollected taxes from its predecessor, $211,905.20; in 1881 the like amount was $84,080.42, —a difference of 127,824.78. I have not deemed it necessary to give in detail all the financial burdens that the administration of 1880 put upon those of 1881, 1882, and 1883; they were a source of care and anxiety not appreciable by the citizens at large. Suffice it to say the taxes were, notwithstanding, kept at a low rate, and the burdens have been carried on to the better day financially for the city which is now near at hand.

The figures I have given in the above statement have been carefully examined by the City Auditor and Treasurer, and these officials have pronounced them to be correct.

TAXATION.

It is one of the most difficult problems in political economy to fix upon an equitable system of taxation for a country or a community. The principal object in laying a tax should be to make it fall as lightly and equably as possible on all alike.

There are two forms of taxation, direct and indirect. The latter, or indirect form, is that laid upon com-

modities imported into a country for consumption, and the principal objection to this is, that a consumer is not aware of the exact amount which he pays when he buys an article of foreign manufacture. Yet the percentage of tax paid thereon often bears a disproportionate part to its whole cost. From the ignorance of the people in this regard the general government is not likely to be held to a just accountability in its appropriations, and a wasteful expenditure may be the result.

But in municipal affairs the form of taxation is direct; every man is supposed to pay in exact proportion to the true value of his property. Under this system the advantage is, that the citizen is more likely to feel a direct interest in a local government, and to see that the money which he pays out of his earnings is wisely appropriated. It makes little difference how estates are valued in a given city or town, if only the valuation bears a just proportion on all alike; and it is very important that the assessors of a city like ours should follow such a system.

Another thing of great importance is that our valuation in Cambridge should bear a just and equal proportion to that put upon property in other cities and towns in this Commonwealth, to the special end that our city should not bear a disproportionate part of the State and County taxes.

The work in the assessors' office under the improved system which has been in vogue for the last few years gives me much satisfaction, and I trust that it will continue in its present advanced state for the future.

The following interesting table is subjoined: —

	Polls.	Valuation.	Dwellings.
1883	14,870	51,797,340	8,572
1882	13,922	50,668,280	8,489
Increase	948	1,129,060	83

OUR CITY SCHOOLS.

The schools of Cambridge are maintained in their usual excellent condition, and the system is so well managed by the school committee that but little need be said by me.

During the past year a new school-house has been erected on Lowell street, in Ward 1, at a cost, including furniture, of $12,943.33.

The third story of the Gore school-house, in Ward 3, has also been finished and furnished, at a cost of $3,302.10.

Several months since the residents in the vicinity of the railroad-crossing on Cambridge street sent in a petition for the erection of a new school-house. Such a necessity exists in that locality, as do also additional school accommodations in Ward 4.

The High-School building, on the corner of Broadway and Fayette streets, seems to need an enlargement, as it is inadequate to the demands of the large number of pupils who desire to attend that school. In 1864, when it was built, the number of pupils was 218, and of teachers, 6. Now there are 430 pupils and 12 teachers. The building is crowded in every part, and there are urgent reasons why an enlargement should be

made. I have obtained from the city engineer's office, and carefully examined, the plans and specifications which were prepared a few years ago for a suitable, and even elegant, enlargement of the building, and if carried out would give this highest of our city schools all the accommodation it would need for a generation to come. I have also made an especial inspection of the building myself, and I can affirm that the demands made at present are not overstated in any particular; and if the City Council can see the way open to make the enlargement, as asked for, I should heartily approve the expenditure. I would call your attention to this matter as one deserving of your early consideration and favorable action in the near future. I append the usual statistics for the past year: —

SCHOOL STATISTICS FOR 1883.

Number of pupils	8,897
Increase during the year	280
Number of teachers	212
Increase during the year	12

Cost of the day schools, not including expenditures for new school-houses and new furniture	$177,149 93
Increase over last year	$10,919 41
Cost of the schools per pupil	$21 62
Increase over last year	58
Cost of new school-houses and new furniture	$16,912 84
Cost of Evening Drawing School	$749 00
Total expenditures for all school purposes	$194,811 77
Deducting receipts from Hopkins Fund ($779.62), and from tuition of non-resident pupils ($227.00), actual cost of the schools to the city	$193,805 15
Increase over last year	$15,805 61

THE PUBLIC LIBRARY.

A valuable adjunct of our educational system is the Public Library, which is but a continuation of the advantages of our schools to those who have passed beyond the actual boundaries of them. This institution should be appreciated more than I believe it is by our municipal government, for the reason that its facilities are probably used to a great extent by those who do not possess libraries of their own, or who do not avail themselves of the privileges of the larger libraries in this city; and therefore should not that class of our citizens be enabled to enjoy the purest, latest, and best of the literature of the day? Its advantages in scientific and literary attainment are great and obvious, and it therefore deserves well of your fostering care. From the twenty-sixth annual report of the trustees (the fifth under the present title) you will learn the usual statistics of the library. A larger number of books have been purchased and circulated than in any given year previously, and the list of juvenile books prepared by our Superintendent of schools furnishes an abundant supply of choice reading matter for the younger portion of the readers.

There is great need of larger rooms and better accommodations, and if no public-spirited citizen should give us a donation for a new and special building for the purpose, there will have to be some other provision made in the near future. The trustees state that a new catalogue is much needed. The library contains about sixteen thousand volumes, and they are catalogued

by author and title in five separate books, and upon seven printed cards.

The Trustees ask for an appropriation of $7,500 for general library purposes, and for $2,000 for the preparation of a new catalogue.

Dr. Parmenter made a handsome donation of books; and several other citizens have also given a few.

Our Public Library is doing a vast amount of educational service in a very quiet manner, and I heartily commend its advantages and its needs to your favorable consideration.

HARVARD UNIVERSITY.

By one of the provisions of the constitution of our Commonwealth it is made "the duty of magistrates to cherish the interests of literature and the sciences and all seminaries of them; especially the University at Cambridge and the public schools." Such a requirement of the constitution comes with peculiar force upon the chief magistrate of the city in which Harvard University is located. I am able to say that during my several terms of office it has been my pleasure, as well as my duty, to conform to so agreeable a feature of our fundamental law.

The calls of the university, from time to time, relative to many matters conducive to the comfort and convenience of its officers and resident students, have ever been most cheerfully met by our municipality; for, though occupying an area of some seventy-one acres of valuable land in our very midst (not taxable, of course), yet we regard the great university, so

world-wide in its fame and national in its influence, as reflecting the highest honor upon our city.

THE WATER-WORKS.

The great necessity involved in the supply of water for our citizens is one of the most important in interest to which I can invite your attention. You will obtain the full particulars of the working of this branch of the city government by reference to the reports of the Water Board, the Registrar, Superintendent, and Engineer.

The entire construction account, on the 30th of November last, was $1,751,344.97, of which $5,730.50 were expended last year.

The quantity of water pumped during the year, in gallons, was	980,670,464
The quantity of water pumped during the year 1882.	903,234,909
Denoting an increase of	77,435,555

This great increase in consumption is a factor which it behooves us to carefully consider in the immediate future, and to make such wise provision for a still greater demand for water as will be made necessary by such an increase in our population as we may confidently anticipate.

Taking as the total amount pumped 980,670,464 gallons, it follows, upon an estimated population of sixty thousand, that there is a daily average of consumption for each individual of about forty-four gallons; this of course includes the quantity used for manu-

facturing purposes, the extinguishment of fires, and for watering the streets; and even then this is an average more economical than most other cities in the United States present, according to the list published in our City Document of 1883.

The sources of an increased supply in future are matters of great import, and these form the principal recommendations of the Board. For three years past the effort has been made to allow us to take water from the Shawsheen river; but the manufacturing interests along that stream have strongly operated to prevent us from so doing. It is urged, by those who opposed this grant to Cambridge by the Legislature, that an equally good supply might be obtained from Stony brook, and at a less cost. The water-shed of this stream and its tributaries extends over some twenty square miles of territory, which is sparsely settled. It is the largest tributary of the Charles river, originating in Sandy pond, in the town of Lincoln, and running south-easterly, passing through Beaver pond, unites with the Charles river at a point near the town of Waltham.

Fresh pond has reached the lowest point ever known, and is going lower day by day. The pump on the shore of the pond has been in daily use since the 27th of August last, for the purpose of raising the water to the level of the wells at the main pumping-station. A duplicate engine has been placed on the shore in order to provide against any possible accident.

The water has fallen away so greatly from the borders of Fresh pond that no less than forty acres of the former bed of it are now exposed to view, and the

Board has taken advantage of this low state of the water to cleanse the bottom of the pond so exposed, and to remove a large quantity of muck and vegetable *debris*, which has been the collection of a long period of time.

STREETS.

The condition of the highways of a city is a very good evidence of its enterprise. While I think that our highways are in a fair condition, everything considered, yet it seems that some of the principal streets, at least, need a thorough rebuilding. Estimates have been prepared, showing that the probable expense of paving Main street with block granite, from West Boston bridge to the Boston & Albany Railroad crossing, would be about $17,000. In my judgment the time has now arrived when that project should be commenced. If it should not be deemed advisable by you to finish the whole length above mentioned at once, it might very properly be done in sections of five hundred to one thousand feet annually.

The Brookline-bridge causeway has been completed, and that avenue now presents a handsome and creditable entrance to our city. The bulkhead on Mount Auburn street, above the Casino grounds, needs rebuilding, and should receive early attention.

The prominent and most-travelled streets that need repairs, but which are not expected to be paved, ought to be rebuilt upon some well-accepted system, like that of MacAdam or Telford. Their reconstruction on one or the other of these systems would result in the truest economy in the end.

Twenty-two watering-carts for use on the streets are owned by the city. It has been the custom for several years to hire additional ones; but from their dilapidated appearance they are no credit to us. I would recommend the purchase of ten new carts, and that the contract for them should be made at once, that they may be ready for use in the early summer.

I would very urgently renew my recommendation of former years relative to street signs, as so many streets, or portions of them, are yet unmarked by any sign whatever.

Eleven new streets have been laid out and accepted, as shown on the following table: —

Name.	From.	Length in Feet.	Width in Feet.
Blake street.	North avenue.	408	40
Bowdoin street.	Linnæn street.	601	40
First street.	Thorndike street.	550	50
Fourth street.	Bridge street.	456	60
Hubbard avenue.	Walden street.	500	40
Larch street.	Brattle street.	2,661	40
Mt. Vernon street.	North avenue.	802	50
Montgomery street.	Spencer street.	211	40
Norris street.	North avenue.	663	40
Oak street.	Cambridge street.	272	30
Lancaster street.	North avenue.	899	30

STREET LAMPS.

The amount appropriated for the past year was . .	$28,000 00
Net amount expended	27,964 16
Balance unexpended	$35 84
The cost per lamp for the maintenance of the department for the year	$32 10
The number of street lamps is as follows: —	
Those lighted with gas	826
Those lighted with kerosene	70
Those lighted with naphtha (in Belmont District)	10
Total	906

These nine hundred and six lights are all that we have in Cambridge with which to illuminate nearly one hundred miles of highways.

The Superintendent of Lamps gives in his report the following rule, adopted by the City Council in 1852, viz., "whenever suitable iron posts and lanterns are erected at such points on any streets in the city as the mayor and aldermen may designate, the mayor is authorized to cause such lamps to be lighted at the expense of the city."

The result of this rule has been that in the business portions of the city, and in other localities occupied by resident owners of real estate, the streets are now well lighted; while large portions of the city, inhabited mostly by poorer people, who are either unable or unwilling to incur the expense of posts and lanterns, have been left in darkness.

And he accordingly suggests a complete lighting

of the streets by the municipality according to their needs.

In European cities lights are provided for all dark places, including narrow courts, alleys, lanes, etc. I thoroughly concur in the suggestions of the Superintendent, so intelligently given.

The subject of introducing electricity as a means of affording additional light is one which must come up before long in the nature of things. If an Electric Lighting Company could be established in Cambridge we might, very properly, employ its services to light our principal public squares, such as Central, Harvard, Inman, and Lechmere squares, and that at Porter's station, including the vicinity of the banks. It would seem that our city might afford a very favorable locality for the introduction of the business of such an illuminating company.

BRIDGES.

Our Commissioner, Mr. William J. Marvin, now in charge of West Boston, Craigie's and Prison-Point bridges, presents a very interesting and satisfactory report as to his labors for the past year. Although very extensive repairs have been made in rebuilding a section of West Boston bridge, on the eastern side, and the replacement with new chestnut wood of the rotten planking on both sidewalks on Craigie's bridge; and notwithstanding the somewhat increased expense of lighting both bridges with electric lights, yet the appropriation of $10,600 proved more than sufficient for the expenses of ordinary repairs, and for the ex-

traordinary outlay above mentioned as well, and there is a balance left, by his good management, of $2,261.55.

From the report of the City Engineer I find that the draws of the River street, Western avenue, and "Cambridge great" bridges, which are placed under the care of the Committee on Roads and Bridges, will need to be rebuilt early in the ensuing season.

The labor of dredging the channel of Charles river, which has been carried along during the past year by the United States government, has caused a greatly increased use of the draws of those bridges, more than has been usual for many years, and the passage of many loaded scows under them has resulted in considerable damage to the piers and supports, all of which have required frequent repairs to be made upon them.

All the other bridges are reported to be in excellent condition.

NEW BRIDGE TO BOSTON.

The project of the new bridge to be run from the terminus of Front street extended, to West Chester Park, in Boston, has now been in the hands of committees of the two cities, acting conjointly, for two years. Under the direction of these committees the City Engineers of Cambridge and Boston have been ordered to make the necessary soundings and borings to fix upon the locations for the stone piers to be required to sustain the structure; also to submit three separate plans for a bridge, to be of 70, 80, and of 100 feet in width respectively, the material to be of iron.

The necessary appropriations for these items of work having been already made by both cities, it will be necessary that a joint special committee shall be appointed, to continue the negotiations, and to supervise the work of the coöperating engineers as it may proceed.

CHARLES–RIVER EMBANKMENT.

The Charles-River Embankment Company has commenced the work of developing its property: 1,000 feet of sea-wall, on the Harbor Commissioner's line, is now under contract and well advanced in execution; 300,000 cubic yards of dredging and filling are also under contract, and a considerable part of the work done.

The question of purchasing a strip of land 100 feet wide, in the line of the approach to the proposed new bridge, for a roadway to it across the property of this company, was before the last city government. It was proposed that the consideration for this purchase should be an amount equal to any increased taxes on the property for a fixed period, and while the work of raising the same to the required grade shall be carried on. In view of the fact that an esplanade 200 feet wide, to be constructed by this company along the entire water-front within their corporate limits, will be devoted to the public use as a water park, it seems reasonable and proper that this concession should be made, if an indenture, legally authorizing such a contract, can be made. The matter was referred to this city government, pending the full examination of the question by the City Solicitor.

Should this great scheme finally become successful a vast amount of taxable property will be added to our city, involving thousands, if not millions, of dollars; and I would earnestly submit to you whether such an important matter should not receive every encouragement which may lawfully be extended to it. The City Solicitor will soon make his report relative thereto, and then you may act intelligently, as I trust you will promptly and liberally, toward a corporation which is potential for so much benefit to our city.

SEWERS.

There have been constructed $2\frac{392}{1000}$ miles of sewers within the past year, making a total length of $67\frac{276}{1000}$ miles of sewers in the whole city. I am happy to report the completion of the sewer for the Coggswell-avenue district; for this, as a sanitary measure, was greatly needed. Many residents in that district have already connected their house-drains with this sewer, and it is particularly desirable that all others on the line of the same should also avail themselves of the privilege, so that the offensive features of the old ditch and water-course in that locality may be entirely removed at as early a day as possible.

Regarding the complaint made by the town of Arlington, as to the nuisance caused by Alewife brook, I can only say that we are equally desirous of its abatement; but as no movement has yet been made in the direction of a deep-sea outlet upon a metropolitan scheme, which would provide for the final deposit of

the sewage matter now entering the brook, no remedy can be applied but the one now followed, — that is, a frequent and thorough cleansing of it.

Drainage for the Belmont district is now asked for, which can be furnished by a sewer having its outlet at Gerry's Landing; yet this will be attended with considerable expense, and promises but small returns from assessments along its line. The uncertainty of a proper place for the final deposit of sewage is an argument against any large expenditure at this point. Some form of relief, however, is greatly needed in this district, and I therefore commend the subject to the best judgment of the city government.

POLICE DEPARTMENT.

The original appropriation and estimated revenue for this department was	$65,600 00
Additional appropriation	1,250 37
Total	$68,101 37
Expenditures for the year	$68,101 37

The increase in the aggregate pay of the force, which was made in March last, was the cause of the additional appropriation.

THE FIRE DEPARTMENT.

The apparatus connected with the Fire Department consists of the following, viz.: —

Steamers and Hose-carriages connected therewith, —

No. 1 (a new one), located in Brattle square.
" 2 (hose carriage rebuilt), located in Main, near Winsor street.
" 3, located in Fourth street, near Cambridge.
" 4, " North avenue, near Russell st.
" 5 (a new boiler in Sept.), located in Inman square.
" 6 (old No. 1, kept for relief purposes only).
A Chemical Engine (the gift of Harvard University), located in Central square.

Hook and Ladder carriages: —
No. 1, Brattle square.
" 2, Cambridge street, corner of Portland.
Fuel-wagons, — 4.
Fire-alarm wagon, — 1.

A new four-wheeled hose-carriage, contracted for by order of the last City Council, is nearly completed, and will, when finished, take the place of the two-wheeled one now in service in connection with Steamer No. 5.

Although mercifully exempted from any large and destructive fire in the years past, yet does it not behoove us, in view of the growth of the city in every direction, and the possibility of some great conflagration, to make still further provision for additional fire apparatus? If such a proposition be answered in the affirmative, what should it be, and where located? There are three steam fire-engines placed east of a line drawn across the city near Inman square, and but two in the much larger territory west of such a line. In my judgment a

steamer placed upon the hill on Concord avenue would promptly serve for fires in that vicinity, and around the reservoir district; it would readily reach North Cambridge, by way of Walden street, and not be too remote for quick service in the Belmont district; and, by the nearness of its location to Cambridge Common, be also available for fires in the more thickly settled portions of the city.

The total length of serviceable leading hose now in use is 10,050 feet. Of this 2,000 feet were purchased during the past year. It will be necessary to make a similar addition the present year, in order to replace such as may be worn out from long usage.

The number of horses in use in the department is 23, of which the city owns 22. The Chief Engineer now furnishes his own horse and wagon; but, in my opinion, he should be relieved of that charge, and the burden assumed by the city. A few of the horses have been in service many years, and are now unfit for the quick work that is required of them; they should be replaced by younger ones; and as the Poor Farm, in charge of our present kind-hearted warden, offers a comfortable home, where such light work only as their age and strength would allow, could be put upon them, these faithful old servants might there be placed.

The house of Hook and Ladder Truck No. 2, a temporary structure, erected some ten years ago, is now unfit for use; a new one should be built near the present site.

The recommendations offered in my address one year ago, relative to the fire-alarm telegraph, I now renew.

We should promptly avail ourselves of all modern improvements in a branch of the service so essential to secure immediate action in cases of fire.

The permanent members of the department were, by ordinance, in June last, directed to wear a prescribed uniform. This measure was accordingly carried out, much to the improvement in the appearance of the men, and advantageous in many other respects.

The appropriation and estimated revenue for 1883 was	$61,650 00
The expenditure for the same period	59,641 15
Showing the gratifying result of a balance of . .	$2,008 85

THE NEW HOSPITAL.

It gives me great pleasure to state that a few weeks ago ground was broken for the new City Hospital, on the lot secured for the purpose, on Mt. Auburn street, on the banks of the Charles river. Such a beneficent institution has long been needed in the city, and I trust that the work upon it may go on to an early completion.

ALMSHOUSE AND THE POOR.

The Overseers of the Poor report that "the system adopted in May, 1877, has been continued the past year with satisfactory results, in the distribution of aid to the deserving poor; and securing, also, the largest yearly revenue for the city treasury that has ever been received from this department." The number of pau-

pers chargeable to the city, at the various institutions in and out of the city, during the past year, has been as follows: —

At City Almshouse	239
" State Almshouse	2
" " Workhouse	1
" " Reform School	3
" " Industrial School	1
" " Primary School	1
" Middlesex House of Correction	2
" State Lunatic Hospitals	52
Total	301

Of the total number at the Almshouse during the year, viz., 239, there were in the institution, on November 30 last, 131, and the monthly average of inmates was about 126.

The total expenditures for the support of the poor inside the Almshouse and elsewhere has been	$33,352 52
Total receipts	9,344 97
Net cost for care of the poor	$24,007 55

Of this amount $6,783.57 was for the support of the 52 insane persons at the State Lunatic Hospitals, as above mentioned, who have a settlement in Cambridge. This class of paupers is increasing from year to year.

There are 22 of the chronic mildly insane class, who are provided for in the Almshouse included in the 239, as per table given. Of the 52 supported at the Lunatic

Hospitals there are doubtless many cases which might be transferred to the Almshouse, where the support would be at a much-lessened expense; but, in case that we should desire that to be done, an addition to the House would be positively necessary.

The line dividing Cambridge from Somerville runs through the centre of our Poor Farm, leaving the greater part of the land, some of the buildings, and the whole of the ledge, within the limits of the latter-named city. It was deemed expedient by the last government to sell some portion of the farm embraced in our neighboring city, and the amount of $5,649.78 has been realized therefrom.

I would recommend the sale of a still further portion of the land, as it is not needed for the purposes of the pauper department, while the holding of it is attended with the unavoidable expense, in the way of taxes, to be paid to Somerville.

I would respectfully submit whether it would not be expedient to put the ledge under the charge of a joint committee, in order to have it worked to its full extent, as the quality of the stone therein is excellent, and the demand for it for building purposes extensive. It is now worked in a very limited manner, principally by inmates of the Almshouse; and does not the great pecuniary value of this ledge (considering its attendant taxation) make it too valuable to be kept merely as a place of exercise for such of our Almshouse inmates as may be able-bodied enough to labor a little upon it?

In accordance with the provisions of our public statutes a range for rifle practice for the use of our two

militia companies has been set up within the bounds of the ledge above mentioned. It seems to be the most convenient place for such a form of military practice, and at present does not interfere with the work there going on. The targets and pits are constructed upon the latest principles of military science, and reflect much credit upon our city engineer.

THE CAMBRIDGE CEMETERY.

The commissioners, in whose hands are placed the care and management of this last resting-place of our dead, have made it attractive to those having lots therein, and worthy the character of such a city as ours. The principal question that comes up this year is, How shall we extend the domain of the cemetery? That some enlargement of it is an immediate necessity there is little doubt; but on which side ought it to be made? Large tracts of land on the Cambridge and on the Watertown sides respectively are each eligible for the purpose, and the decision must soon be made between them.

The whole number of interments made in the cemetery to date is 13,060, of which 558 have been made during the year 1883.

Gentlemen of the City Council: —

In the necessarily general manner in which I have been obliged to allude to the operations of municipal affairs during the last year there are

several subjects which I should otherwise have desired to dwell upon more at length; but the annual reports of the several commissions, committees, and heads of departments will afford you all the additional information which you may require. Many of them are very full and clear, some admirably prepared, and all of them are interesting. I therefore respectfully urge upon you, individually, the careful perusal of them in their minutiæ. You will be especially fortunate while in the discharge of your various duties in having the valuable aid of such able, intelligent, and experienced officials as the City Clerk and the Clerk of Committees.

The oaths of office which you have this day taken involve responsibilities important and onerous. You are set to advance the interest of education, charity, health, travel, and to protect the lives, the morals, and the property of the people. In doing this forget not the incubus which has weighed us down in the past, and let there be no increase of debt or tax during your term of office. Now, heartily wishing that this may be a happy year to you, as well officially as personally, I close with the adjuration to you of harmony, mutual good-will, and unselfish endeavor in your several duties, relying for light and help upon that merciful Father "who maketh men to be of one mind in a house."

REPORT

OF THE

COMMITTEE ON FINANCE.

The financial year, which closed November 30, 1883, brought with it an increased necessity for expenditure in nearly every department of our city affairs. The request for additional school accommodations, annually made by the School Board, and which was favorably responded to by the City Councils of the years 1881 and 1882, was renewed in the report of the Superintendent of Schools for the latter year. The increased city expenses in 1882, for the usual twelve months, together with the additional month, as explained in the last annual report of the Committee on Finance, had compelled that committee to borrow the sum of $100,000, in the month of December, to cover a deficit thus caused, the loan to be paid from the taxes of 1883. This committee was therefore met, at the outset, with the necessity of providing for the sum above named, in addition to the amount required for the customary appropriations.

After a careful consideration and scrutiny of every item of revenue and appropriation usually included in the annual financial budget, a sheet was made up, showing a balance necessary to be raised by taxation of $876,653.17.

It appearing probable that the levying of so large a sum might necessitate a considerable increase in the tax-rate, as will be remembered, it was deemed advisable by the City Council to modify the committee's report by reducing the amount as recommended to the sum of $800,000. An opportunity was afforded to the individual members of the two branches for ascertaining, to some extent, the public sentiment in the matter of such increase, and it is believed that the

general opinion thereon was correctly expressed by the nearly unanimous vote by which the amended figures were adopted.

It was further thought to be a wise policy to avoid any present advance of the rate of taxation, the prospect before us being that the large reduction of the city debt — a part of which was to be accomplished in the year 1883, and another portion in 1884 — would easily relieve us from any difficulties possibly resulting from a shortage of money in this financial year. The method of scaling the balance of the estimates of the revenue and appropriation accounts, in order to prevent an increase of the tax-rate, was adopted by the City Councils of 1880, 1881, and 1882, the example having been set by the Committee on Finance for the year 1880, which presented to the City Council a financial statement, showing a balance necessary to be raised by taxation in that year of the sum of $782,497, and at the same time recommended that the sum of $733,000 be raised by taxation, thereby deducting from the balance just named the sum of $49,497. The effect of this action was the reduction of the city taxes for the year 1880, at the rate of about $1 per $1,000; but the rule thus established has compelled the same action on the part of subsequent City Councils to avoid an addition of the same amount per $1,000 to their respective tax levies. The deduction of the amount of $77,000 from the balance shown in the financial report of 1883 made it obvious, at the outset, that the payment of the sum of $100,000, borrowed as of November, 1882, must necessarily be followed by another city loan of a like sum, to be payable from the taxes of 1884.

It was found necessary to borrow in addition to this amount, owing to the failure to realize the estimated sum from the sale of city lands, and by reason of the large increase of expenditures in the various appropriation accounts.

Both of these deficiencies were caused by exigencies that could hardly have been foreseen. The apparent demand for lands for building purposes, at the beginning of the year, which seemed to justify the estimated receipts therefrom as made by this committee, was only such in appearance; and it thereafter became evident that the times were not yet ripe for large transactions in real estate. The various boards and com-

mittees also were confronted with demands for improvements and repairs that could not be postponed, and could not have been foreseen.

The expenditures from the City Treasury in the years stated hereunder, chargeable to appropriation accounts, were as follows: —

December 1, 1882, to December 1, 1883 .	$1,256,394 35
November 1, 1881, to December 1, 1882 .	1,232,561 82
Increase in 1883	$23,832 53

Some of the appropriations, subject to large increase in the past year, are named below: —

Bridges, West Boston, Craigie, and Prison Point, extensive repairs on the first-named bridge .	$1,648 63
Cambridge Public Library, increased cost . .	517 98
Cemeteries, increased cost	1,254 58
Lighting streets, part of cost of additional lamps, and all-night lighting	4,178 15
Police, increased cost	6,204 73
School-houses (care and repair); general repairs in all the school-houses, and increased cost of fuel	3,640 62
School-houses (new, and furniture), increased cost over 1882	4,883 11
Sewers (construction), Coggswell ave., and other large sewers	2,320 76
Shade-trees and public grounds, new iron fence around Dana square, and other improvements,	1,459 06
Street Department (repairs), part of increased cost of repairs upon streets	8,647 37
Street Department (watering), extra expense occasioned by dry summer season . . .	6,108 48
Street Department (widening), part of cost of widening Brookline-street causeway in 1882 .	1,706 40
Total	$42,579 87

The amount borrowed on temporary loans in 1883, payable from the taxes of 1883	$500,000	
In 1883, payable from the taxes of 1884	155,000	
		$655,000
In 1882, payable from the taxes of 1882	$525,000	
In 1882, payable from the taxes of 1883	100,000	
		625,000
Increase in 1883		$30,000

The entire amount of the appropriation for Sinking-Funds, it being the sum of $163,665, was advanced to the Commissioners of said funds in anticipation of the November payment of the sum due them, and the amount thus advanced is included in the aggregate amount of cash borrowed during the year. Interest on anticipated payments was paid by the Commissioners on the Sinking-Funds, as follows: —

Amount due and unpaid November 30, 1882	$434 19
" " on money advanced in 1883	4,047 81
Total	$4,482 00

The amount paid for interest upon the temporary loan of 1882 and 1883, payable from the taxes of 1883, was	$14,880 25
Interest so paid in 1882	9,720 05
Balance	$5,160 20
Less amount received as above	4,482 00
Actual increase of interest over 1882	$678 20

The amount of cash on hand, per Auditor's Account, was: —

In 1882	$5,399 09
In 1883	1,628 57
Decrease	$3,770 52

The actual amount of cash in the City Treasury was as follows: —

Balance, per auditor's account	$1,628 57
Amount of November draft, payable in December,	56,930 09
Amount of previous drafts unpaid . . .	14,622 35
Balance in City Treasury, per Treasurer's account, November 30, 1883 . . .	$73,181 01

This committee met at the City Treasurer's office at the close of business, on the 30th of November, and counted the cash then on hand, and found the amount of the same to agree with the statements of the Treasurer and Auditor. At a subsequent meeting a careful examination was made of the accounts of both officers, and the same compared. The different footings were examined and proved. All the accounts were found to be correct.

The usual tables, taken from the books of the Assessors, are given below: —

Polls and Valuation of Estates in 1883.

Wards.	Polls.	Personal.	Real Estate.	Total.	Dwellings.
Ward 1	2,642	$5,093,500	$10,247,100	$15,340,600	1,636
2	4,137	3,312,065	10,284,300	13,596,365	2,341
3	2,934	1,373,575	6,643,800	8,017,375	1,387
4	3,510	1,338,300	7,800,700	9,139,000	2,233
5	1,647	858,200	4,845,800	5,704,000	975
Total	14,870	$11,975,640	$39,821,700	$51,797,340	8,572

Polls and Valuation of Estates in 1882.

Wards.	Polls.	Personal.	Real Estate.	Total.	Dwellings.
Ward 1	2,387	$4,982,050	$10,179,000	$15,161,050	1,616
2	3,851	3,117,630	10,159,600	13,277,230	2,322
3	2,867	1,374,800	6,471,100	7,845,900	1,381
4	3,316	1,377,100	7,563,300	8,940,400	2,223
5	1,501	725,500	4,718,200	5,443,700	947
Total	13,922	$11,577,080	$39,091,200	$50,668,280	8,489

A comparison of the foregoing tables shows an increase under each heading, as follows : —

	Polls.	Valuation.	Dwellings.
1883	14,870	$51,797,340	8,572
1882	13,922	50,668,280	8,489
Increase	948	$1,129,060	83

The amount assessed upon these polls and valuations was

In 1883	$879,225 37
In 1882	868,937 45
Increase . . .	$10,287 92

The sum raised by taxation in the year 1883 is thus shown to have been $10,287.92 more than that of the preceding year, while there has been an increase of $1,129,060, in the valuation of personal and real estate. The rate of taxation was $16.40 per $1,000, it being a reduction of 20 cents from that of 1882. This rate was subject to the customary discount of four per cent. on taxes paid on or before October 10.

It was the earnest desire of your committee that the finances of our city should be so managed, while under its direction,

that no unusual burden should be imposed upon the tax-payers. It was well known that many municipal needs had long been unsatisfied, and that it might be imperatively necessary to provide for large outlays of the public money during the year. Exigencies also arose, not foreseen, which had to be met, all requiring the constant exercise of prudence and good judgment, which happily were constantly shown by the City Council in its treatment of the various important matters brought before it. The effort to prevent any increase of taxation in the year 1883 was prosperous in its results; and, our main difficulties having been encountered, we may now confidently look forward to a lifting of the public burden, consequent upon the large reduction made in the city debt during this year, and to be made in the year 1884.

JAMES A. FOX,
JOHN READ,
S. S. SLEEPER,
GEO. H. HOWARD,
GEO. C. BENT,
SAMUEL W. McDANIEL,
JAMES H. WELLS,
ARTHUR E. JONES,
P. ALLEN LINDSEY,

Committee on Finance.

ANNUAL REPORT

OF THE

AUDITOR OF ACCOUNTS.

Gentlemen of the City Council: —

The undersigned, in compliance with a city ordinance, herewith presents the thirty-seventh Annual Report of the receipts and expenditures of the city of Cambridge, being for the year ending Nov. 30, 1883.

Total receipts for the year	$2,714,582 63
Add the amount in treasury, Dec. 1, 1882 .	5,399 09
	$2,719,981 72
Total expenditures for the year . . .	2,718,353 15
Balance in treasury, Nov. 30, 1883 . .	$1,628 57

There has been no increase in the permanent debt of the city during the year.

Of this debt there have matured during the year: —

Funding Loan bonds	$216,000 00
Building Loan bonds	119,000 00
Lowland Loan bonds	270,000 00
	$605,000 00
Water Loan bonds	55,000 00
	$660,000 00

This amount has been paid from the Sinking-Funds.

The following is a statement of the temporary loans negotiated during the year, and the rate of interest paid on the same: —

Dec. 30, 1882	$125,000	Int. 3⅝ per cent.,	due Oct. 11,	1883.
Feb. 8, 1883	50,000	" 3⅝ "	" 11,	"
Mar. 9, "	25,000	" 4 "	" 12,	"
Mar. 31, "	135,000	" 4 "	" 12,	"
April 2, "	90,000	" 4 "	" 12,	"
July 3, "	125,000	" 3¾ "	" 13,	"
Sept. 8, "	25,000	" 4¼ "	" 13,	"
Sept. 8, "	25,000	" 4¼ "	" 13,	"
	$600,000			
Oct. 26, "	50,000	" 3⅞ "	" 10,	1884.
Nov. 10, "	50,000	" 3⅞ "	" 10,	"
Nov. 30, "	55,000	" 3¾ "	" 11,	"
	$155,000			

THE CITY DEBT.

		1882.	1883.
Funded loan		$2,450,000 00	$3,055,000 00
Funded water loan		1,423,700 00	1,478,700 00
Temporary loan		155,000 00	100,000 00
Trust funds: —			
Dowse Institute fund	$10,000 00		
Sanders Temperance fund	10,000 00		
Daniel White Charity fund	5,000 00		
Fay fund	1,000 00		
Cemetery fund	5,250 00		
		31,250 00	30,400 00
Corporation tax			31 83
National-bank tax		5,626 08	5,838 40
State and county taxes	$77,595 00		95,748 53
			$4,765,718 76
Less amounts due from State			83,783 83
Corporation tax $46,889 02			
National-bank tax 18,906 41			
State aid 12,958 00			
Aid to paupers 716 24			
	79,469 67	1,874 67	
		$4,063,701 41	$4,681,934 93

The means for paying the funded debt have been changed during the year as follows: —

Amount of both sinking-funds, Nov. 30, 1882 .		$1,974,650 26
Less amounts paid into the treasury for the redemption of matured bonds . . .		660,000 00
		$1,314,650 26
Amount appropriated by City Council in 1883 . . .	$208,020 00	
Interest accumulations during the year	92,913 88	
Net premiums received . .	1,630 00	
		302,563 88
Amount of both funds, Nov. 30, 1883.		$1,617,214 14

The net city and water (funded) debt, Nov. 30, 1883, compared with the same debt Nov. 30, 1882, is as follows: —

Gross debt	$4,063,701 41	$4,681,934 93
Less amount in both sinking-funds and cash in treasury .	1,618,842 71	1,980,049 35
	$2,444,858 70	$2,952,756 20
Decrease of net debt, Nov. 30, 1883.	$507,897 50	

THE FUNDED DEBT.

Following is a statement of the total funded debt of the city, with the dates of maturity and rates of interest thereon: —

Bridge Loan.		
Due July 1, 1884, interest 6 per cent. .	$94,000	
July 1, 1885, " 6 " .	26,000	
		$120,000
Building Loan.		
Due April 1, 1884, interest 6 per cent. .	$198,000	
July 1, 1885, " 6 " .	17,000	
		215,000
Amount carried forward		$335,000

Amount brought forward						$335,000
			City Loan.			
Due July 1, 1886, interest	6	per cent. .			$100,000	
April 1, 1889, "	5	" .			100,000	
July 1, 1890, "	6	" .			20,000	
Jan. 1, 1893, "	5	" (gold)			150,000	
						370,000
			Funding Loan.			
Due July 1, 1884, interest	6	per cent. .			$100,000	
July 1, 1885, "	6	" .			24,000	
						124,000
			Land Loan.			
Due July 1, 1893, interest	6	per cent. .			$10,000	
						10,000
			Lowland Loan.			
Due April 1, 1884, interest	6	per cent. .			$240,000	
Oct. 1, 1884, "	6	" .			56,000	
July 1, 1885, "	6	" .			122,000	
July 1, 1886, "	6	" .			60,000	
Oct. 1, 1887, "	5	" .			120,000	
						598,000
			Paving Loan.			
Due July 1, 1893, interest	6	per cent. .			$100,000	
July 1, 1894, "	6	" .			130,000	
July 1, 1895, "	6	" .			25,000	
						255,000
			Sewer Loan.			
Due Oct. 1, 1895, interest	6	per cent. .			$20,000	
July 1, 1896, "	6	" .			29,000	
July 1, 1903, "	6	" .			136,000	
July 1, 1904, "	6	" .			295,000	
July 1, 1905, "	6	" .			144,000	
						624,000
Amount carried forward						$2,316,000

Amount brought forward		$2,316,000
Street Loan.		
Due July 1, 1893, interest 6 per cent. .	$13,000	
		13,000
Street-Widening Loan.		
Due July 1, 1886, interest 6 per cent. .	$7,000	
July 1, 1903, " 6 " .	10,000	
July 1, 1904, " 6 " .	90,000	
July 1, 1905, " 6 " .	14,000	
		121,000
Water Loan.		
Due May 1, 1875, interest 6 per cent. .	$200	
July 2, 1886, " 6 " .	100,000	
April 1, 1887, " 6 " .	150,000	
April 1, 1888, " 6 " .	175,000	
May 1, 1889, " 6 " .	112,000	
July 1, 1890, " 6 " .	60,000	
May 1, 1891, " 6 " .	50,000	
July 1, 1892, " 6 " .	335,000	
April 1, 1894, " 6 " .	150,000	
April 1, 1895, " 6 " .	160,000	
July 1, 1896, " 6 " .	103,000	
July 1, 1897, " 6 " .	16,000	
July 1, 1898, " 5 " .	12,500	
		1,423,700
Total funded debt		$3,873,700

Dates of Maturity of Funded Loan.

Following is a statement of the total funded debt, showing the amount of bonds due, and payable each year until all mature: —

1875	$200
1884	688,000
1885	189,000
Amount carried forward . . .	$877,200

Amount brought forward . . .	$877,200
1886	267,000
1887	270,000
1888	175,000
1889	212,000
1890	80,000
1891	50,000
1892	335,000
1893	273,000
1894	280,000
1895	205,000
1896	132,000
1897	12,500
1898	16,000
1903	146,000
1904	385,000
1905	158,000
	$3,873,700

LIABILITIES AND ASSETS.

Liabilities.

Funded city loan	$2,450,000 00
Funded water loan	$1,423,700 00
Temporary loan	155,000 00
State tax	44,835 00
National-bank tax	5,626 08
County tax	32,760 00
Trust funds	31,250 00
	$4,143,171 08

[1] Assets.

Cash in treasury	$1,628 57
Amount in sinking-funds	1,120,317 19
Amount in sinking-fund of Water Works .	496,896 95
Amount carried forward	$1,618,842 71

[1] The above assets do not include the public buildings of the city, and other public property in use, not in the market for sale.

Amount brought forward	$1,618,842 71
Notes receivable	13,015 33
City lands and surrendered estates	183,443 58
Uncollected taxes of 1882 and 1883	78,195 98
State aid due from Commonwealth	12,958 00
Corporation tax due from Commonwealth	46,889 02
National bank tax due from Commonwealth	18,906 41
Aid to paupers due from Commonwealth	716 24
Uncollected water bills	658 90
Miscellaneous bills	2,053 00
	$1,975,679 17

RECEIPTS.

The receipts of the year, as credited to the several city accounts, are as follows: —

No.		
1.	Notes Receivable	$23,028 50
2.	Bridges, West Boston, Craigie, and Prison-point	214 55
3.	Cambridge Public Library	2,182 26
4.	Cemeteries	11,342 12
5.	Cemetery Fund	850 00
6.	City Lands	13,702 81
7.	Fire Department	908 65
8.	Health Department	83 01
9.	Incidental Expenses	38,780 89
10.	Interest	7,467 97
11.	Lighting Streets	25 00
12.	Loan, Temporary	600,000 00
13.	Loan, payable from taxes of 1884	155,000 00
14.	Pauper Department	5,057 60
15.	Pauper Department, Almshouse	4,287 37
16.	Pauper Department, House Offal	5,819 55
17.	Police Department	2,832 62
18.	School Department, Salaries	1,006 62
19.	School-houses, Care and repairs	57 60
20.	Sewers, Construction	10,885 33
21.	Sewers, Maintenance	1,786 94
22.	Sinking-Funds, Commissioners of	605,000 00
23.	Sinking-Fund of Water Works, Trustees of	55,000 00
24.	State Aid	15,076 00
25.	Street Department, Paving	381 65
	Amount carried forward	$1,560,777 04

	Amount brought forward	$1,560,777 04
26.	Street Department, Repairs	1,836 85
27.	Street Department, Watering	9,501 48
28.	Surrendered Estates, Care and Repairs	258 64
29.	Surrendered Estates, Sale Account	6,450 29
30.	Tax, Corporation	52,171 52
31.	Tax, National Bank	20,781 44
32.	Taxes of 1878	111 60
33.	Taxes of 1879	86 80
34.	Taxes of 1880	137 60
35.	Taxes of 1881	3,097 92
36.	Taxes of 1882	53,735 36
37.	Taxes of 1883	818,423 50
38.	Water Works, Rates, Fines, etc.	181,158 73
39.	Water Works, Supplies	6,053 86
		$2,714,582 63

EXPENSES.

The expenditures of the year, as charged to the city accounts, are as follows: —

No.		
1.	Abatements and Discounts	$45,972 62
2.	Bridges	2,345 30
3.	Bridges, West Boston, Craigie, and Prison Point	8,553 00
4.	Cambridge Public Library	7,455 50
5.	Cemeteries	15,908 73
6.	Engineering	6,772 23
7.	Fire Department	59,641 15
8.	Health Department	1,426 90
9.	Incidental Expenses	31,429 71
10.	Interest	189,908 33
11.	Interest on Water Loan	88,804 00
12.	Lighting Streets	28,001 16
13.	Loan, Temporary	600,000 00
14.	Loan, payable from taxes of 1883	100,000 00
15.	Loan, Funding, Matured	216,000 00
16.	Loan, Building, Matured	119,000 00
17.	Loan, Lowland, Matured	270,000 00
18.	Loan, Water, Matured	55,000 00
19.	Pauper Department	14,869 84
20.	Pauper Department, Almshouse	18,853 64
21.	Pauper Department, House Offal	9,776 50
22.	Police Department	68,101 37
23.	Salaries	22,180 37
	Amount carried forward	$1,980,000 35

No.		
	Amount brought forward	$1,980,000 35
24.	School Department, Drawing Schools	749 00
25.	School Department, Incidental Expenses . . .	1,249 40
26.	School Department, Salaries	144,457 60
27.	School Department, Text-Books and Stationery . .	2,855 49
28.	School-houses, Care and Repairs	28,946 83
29.	School-houses, New, and Furniture	16,553 45
30.	Sewers, Construction	26,779 87
31.	Sewers, Maintenance	11,495 74
32.	Shade Trees and Public Grounds	4,035 42
33.	Sinking-Funds	163,665 00
34.	Sinking-Fund of Water Works	44,355 00
35.	State Aid	13,864 50
36.	Stationery and Printing	3,225 61
37.	Street Department, Paving	7,158 96
38.	Street Department, Repairs	84,001 84
39.	Street Department, Watering	24,989 20
40.	Street Department, Widening	1,706 40
41.	Surrendered Estates, Care and Repairs	50 50
42.	Surrendered Estates, Sale Account	198 79
43.	Tax, National Bank	5,838 40
44.	Tax, County	26,208 53
45.	Tax, Corporation	31 83
46.	Tax, State	69,540 00
47.	Tax, Lien Account	141 25
48.	Water Works, Construction	5,730 50
49.	Water Works, Maintenance	45,371 61
50.	Water Works, Rates, Fines, etc.	1,123 34
51.	Water Works, Supplies	4,028 74
		$2,718,353 15

A statement in detail of the receipts and expenditures of each department, with its appropriations, and the balance unexpended, is given on the following pages.

FRANKLIN PERRIN,
Auditor of Accounts.

CAMBRIDGE, MASS., December, 1883.

N.B. For items of supposed interest to the reader see the end of this report.

List of Appropriations for the various City Departments, with the Receipts and Expenditures of the same for the Year ending Nov. 30, 1883.

City Accounts.	Original Appropriations.	Estimated Revenue.	Estimated Revenue as changed by authority of City Council.	Actual Revenue.	Amount of Appropriation transferred to.	Amount of Appropriation transferred from.	State of Appropriation Nov. 30, 1883.	Expended.
Abatements and Discounts	$41,000 00	.....	.....	.....	$4,972 62	.....	$45,972 62	$45,972 62
Bridges	2,000 00	.....	.....	.....	345 30	.....	2,345 30	2,345 30
Bridges (West Boston, Craigie, and Prison-point)	10,600 00	.....	.....	$214 55	.....	$2,047 00	8,553 00	8,553 00
Cambridge Public Library	5,000 00	$2,500 00	$2,500 00	2,182 26	.....	44 50	7,455 50	7,455 50
Cemeteries	.....	12,500 00	12,500 00	11,342 12	3,408 73	.....	15,908 73	15,908 73
Engineering	6,675 00	25 00	25 00	.....	72 23	.....	6,772 23	6,772 23
Fire Department	61,350 00	300 00	300 00	908 65	.....	2,008 85	59,641 15	59,641 15
Health Department	1,500 00	100 00	100 00	83 01	.....	173 10	1,426 90	1,426 90
Incidental Expenses	3,000 00	30,000 00	30,000 00	38,780 89	.....	1,570 29	31,429 71	31,429 71
Interest	182,000 00	3,000 00	3,000 00	7,467 97	4,908 33	.....	189,908 33	189,908 33
Interest on Water Loan	.....	88,585 00	88,585 00	.....	219 00	.....	88,804 00	88,804 00
Lighting Streets	28,000 00	.....	.....	25 00	1 16	.....	28,001 16	28,001 16
Pauper Department	10,000 00	3,700 00	3,700 00	5,057 60	1,169 84	.....	14,869 84	14,869 84
Pauper Department (Almhouse)	12,000 00	3,500 00	3,500 00	4,287 37	3,353 64	.....	18,853 64	18,853 64
Pauper Department (House Offal)	2,500 00	5,500 00	5,500 00	5,819 55	1,776 50	.....	9,776 50	9,776 50
Police Department	60,600 00	5,000 00	5,000 00	2,832 62	2,501 37	.....	68,101 37	68,101 37
Salaries	22,366 66	.....	.....	.....	.....	186 29	22,180 37	22,180 37
School Department (Drawing Schools)	750 00	.....	.....	.....	.....	1 00	749 00	749 00
School Department (Incidental Expenses)	1,800 00	.....	.....	.....	.....	550 60	1,249 40	1,249 40
School Department (Salaries)	144,000 00	1,000 00	1,000 00	1,006 62	.....	542 40	144,457 60	144,457 60
School Department (Text-books and Stationery)	3,700 00	.....	.....	.....	.....	844 51	2,855 49	2,855 49
School-Houses (Care and Repair)	24,500 00	.....	.....	57 60	4,446 83	.....	28,946 83	28,946 83
School-Houses (New, and Furniture)	17,000 00	.....	.....	.....	.....	446 55	16,553 45	16,553 45
Sewers (Construction)	13,000 00	7,000 00	7,000 00	10,885 33	6,779 87	.....	26,779 87	26,779 87
Sewers (Maintenance)	11,500 00	500 00	500 00	1,786 94	.....	504 26	11,495 74	11,495 74
Shade Trees and Public Grounds	2,500 00	.....	.....	.....	1.535 42	.....	4,035 42	4,035 42
Sinking-Funds	163,665 00	.....	.....	.....	.....	.....	163,665 00	163,665 00
Sinking-Fund of Water Works	.....	44,355 00	44,355 00	.....	.....	.....	44,355 00	44,355 00
State Aid	500 00	15,276 00	13,864 50	15,076 00	.....	1,911 50	13,864 50	13,864 50
Stationery and Printing	3,000 00	.....	.....	.....	225 61	.....	3,225 61	3,225 61
Street Department (Construction)	.....	.....	.....	.....	.....	.....	.....	.....
Street Department (Paving)	7,000 00	.....	.....	381 65	158 96	.....	7,158 96	7,158 96
Street Department (Repairs)	74,700 00	500 00	500 00	1,836 85	8,801 84	.....	84,001 84	84,001 84
Street Department (Watering)	10,000 00	10,000 00	10,000 00	9,501 48	4,989 20	.....	24,989 20	23,989 20
Street Department (Widening)	.....	.....	.....	.....	1,706 40	.....	1,706 40	1,706 40
Surrendered Estates (Care and Repair)	.....	125 00	50 50	258 64	.....	74 50	50 50	50 50
Water Works (Construction)	5,000 00	.....	.....	.....	730 50	.....	5,730 50	5,730 50
Water Works (Maintenance)	.....	28,000 00	45,371 61	.....	1,371 61	.....	45,371 61	45,371 61
Water Works (Rates, Fines, etc.)	.....	4,000 00	1,123 34	181,158 73	.....	876 66	1,123 34	1,123 34
Water Works (Supplies)	.....	2,000 00	4,028 74	6,053 86	28 74	.....	4,028 74	4,028 74
	$931,206 66	$267,466 00	$282,503 69	$307,005 29	$53,503 70	$11,782 01	$1,256,394 35	$1,256,394 35

DETAILED STATEMENT,

SHOWING RECEIPTS AND EXPENDITURES, AND AMOUNTS APPROPRIATED UNDER EACH CITY ACCOUNT FOR THE FINANCIAL YEAR ENDING NOV. 30, 1883.

Abatements and Discounts.

Amount appropriated		$41,000 00
[1]Add amount transferred to		4,972 62
		$45,972 62
EXPENDED.		
For Abatement of taxes . . .	$14,784 62	
Discount on taxes . . .	31,188 00	
		$45,972 62

Notes Receivable.

On account of mortgage notes held by the city for surrendered estates (sale account), as per item No. 1 of receipts	$23,028 50

Bridges.

Amount appropriated		$2,000 00
Add amount transferred to		345 30
		$2,345 30
EXPENDED.		
For Draw-tending	$600 00	
Hardware	15 15	
Labor, as per pay-roll . .	1,032 50	
Lumber	420 35	
Mason-work	4 75	
Repairs at River-st. Bridge .	272 55	
As per item No. 2 of expenses . .		$2,345 30

[1] If from any cause an original appropriation falls short, the additional sum required can only be furnished by the City Council, which can transfer it from some appropriation which can spare it, or it can make a specific loan. Thus the City Council knows of and controls all expenditures.

Bridges (West Boston, Canal, and Prison Point).

Amount appropriated	$10,600 00
Deduct amount transferred from	2,047 00
	$8,553 00

RECEIVED.

For Old lumber, etc.	$10 50	
Sheathing	54 00	
Rent	92 15	
Wharfage	57 90	
As per item No. 2 of receipts		$214 55

EXPENDED.

For Bell-hanging	$1 75	
Car-tickets and fares	4 35	
Carpenter work	1,695 50	
Carting	121 62	
Electric lights	469 00	
Fuel	235 49	
Gas	574 23	
Gas-fitting and pipes	6 48	
Hardware and tools	139 10	
Hose	11 85	
Iron-work and repairs	347 51	
Labor, as per pay-roll, including salaries of Civil Engineer and Superintendents	2,171 52	
Cleaning and supplies	159 38	
Legal services	10 00	
Lumber	1,018 70	
Oil and packing	11 00	
Painting	138 66	
Paving and granite blocks	194 42	
Pile-driver, use of	57 50	
Piles and girders	312 25	
Amount carried forward		$7,680 31

Amount brought forward	$7,680	31
For Plastering and mason-work	7	07
Ploughing snow	6	38
Plumbing	25	48
Salary of Commissioner, Ezra Parmenter	83	34
Salary of Commissioner, W. J. Marvin	333	34
Sand and bricks	74	37
Stationery and printing	3	21
Water	14	50
Watering bridges	325	00
As per item No. 3 of expenses	$8,553	00

Cambridge Public Library.

Amount appropriated		$5,000 00
Estimated revenue		2,500 00
		$7,500 00
Deduct amount transferred from		44 50
		$7,455 50

RECEIVED.

For Catalogues and fines	$87	59
Dog-tax from county	2,016	61
Errors in bill	3	21
Fees, etc.	74	85
As per item No. 3 of receipts	$2,182	26

EXPENDED.

For Antique views of Boston	$5	40
Librarian and assistants	2,364	64
Binding books	526	27
Book-cases	188	65
Books	2,559	05
Amount carried forward	$5,644	01

Amount brought forward	$5,644 01	
For Carpeting	30 00	
Directory	2 50	
Furniture	73 25	
Gas	257 23	
Gas-piping	3 90	
Hand-stamp	6 00	
Ice	9 00	
Magazines and papers	167 62	
Printing	146 75	
Repairs	12 03	
Rent	1,000 00	
Stationery	36 64	
Supplies	53 57	
Water rates	11 00	
Watering street (proportion of expense)	2 00	
As per item No. 4 of expenses		$7,455 50

Cemeteries.

Estimated revenue	$12,500 00
Additional appropriation	3,408 73
	$15,908 73

RECEIVED.

For Sale and care of lots	$9,608 49	
Burial fees	1,706 50	
Brick grave	23 00	
Foundation for lot	4 13	
As per item No. 4 of receipts		$11,342 12

EXPENDED.

For Bags	77	
Canvas	$16 80	
Carpenter-work on fence	16 00	
Amount carried forward	$33 57	

Amount brought forward . .	$33	57
For Car-tickets	20	00
Cement	49	50
Clothing	18	00
Commission for procuring prices of land	100	00
Covering-stones	134	99
Directory	2	50
Fuel	59	25
Grave cover	5	23
Gravel	211	80
Hardware and tools, and repairs .	209	48
Labor, as per pay-roll . . .	9,294	44
Loam and manure . . .	2,329	48
Lumber	51	89
Mowers, repairs of . . .	13	60
Plants and seeds	157	42
Plumbing	2	00
Printing	17	75
Sods	405	17
Stamps	18	00
Stationery	13	14
Stone posts	125	00
Stone-work and mason-work .	49	70
Stones (rough)	206	17
Stones for numbering lots . .	21	50
Strap, repairing		30
Superintendent's salary . .	1,300	00
Supplies	18	83
Teaming	881	54
Telephone rental	39	60
Webbing	8	00
Water and repairs of hydrants .	110	86
As per item No. 5 of expenses . .		$15,908 73

Cemetery Fund.

Amount of fund, Nov. 30, 1882 . . .	$4,400 00

RECEIVED.

For perpetual care lots in Cambridge Cemetery, as per item No. 5 of receipts . . .	850 00
Amount of fund, Nov. 30, 1883 . . .	$5,250 00

City Lands.

RECEIVED.

For cash payments on estates sold, as per item No. 6 of receipts	$13,702 81

Engineering.

Amount appropriated	$6,675 00
Estimated revenue	25 00
Add amount transferred to	72 23
	$6,772 23

EXPENDED.

For Assistants, services of . .	$4,031 23	
Carpenter-work . . .	60	
Car-tickets and fares . .	112 68	
Directory	2 50	
Expressage	45	
Hand-stamps, repairs of . .	1 00	
Hardware	6 89	
Labor, extra	13 00	
Landmarks	6 25	
Mounting sheets . . .	2 50	
Salary W. S. Barbour, Engineer	2,500 00	
Supplies	95 13	
As per item No. 6 of expenses . . .		$6,772 23

Fire Department.

Amount appropriated		$61,350 00
Estimated revenue		300 00
		$61,650 00
Deduct amount transferred from		2,008 85
		$59,641 15

RECEIVED.

For Rent of tenements	$200 10	
Manure	103 50	
Error in bill	1 10	
Old engine	500 00	
Old hose and poles	73 95	
Use of engine	30 00	
As per item No. 7 of receipts	$908 65	

EXPENDED.

For Alarms (batteries, poles repairs, ringing bells, etc.)	$955 01	
Automatic Electric Apparatus for lighting gas, Engine-House No. 2	125 00	
Apparatus, repairs of	2,331 05	
Badges, buttons, and button dies,	135 07	
Bedding and furniture	190 22	
Carriage-hire	10 00	
Disinfectants	20 00	
Damage to buildings by wires	17 00	
Directory	2 50	
Enginemen, services of	32,756 55	
Enginemen (substitutes during vacations and sickness)	561 50	
Engine, steam fire (new)	4,000 00	
Expressage	44 70	
Amount carried forward	$41,148 60	

	Amount brought forward .	$41,148 60	
For	Fuel	1,055 35	
	Fuel for steam fire-engines .	280 00	
	Fares of committee to Manchester, N.H. . . .	24 90	
	Gas.	811 07	
	Hardware and tools . . .	96 00	
	Harnesses and repairs . .	195 96	
	Hats	21 00	
	Hay, grain, and straw . .	2,331 74	
	Hand-stamp	8 00	
	Horse-hire	491 51	
	Horse-shoeing	510 01	
	Houses, repairs of . . .	659 81	
	Hydrants, care of . . .	121 02	
	Hose, repairs and care of . .	2,266 37	
	Labor, extra, on ruins . .	6 00	
	Oil	38 58	
	Printing	24 75	
	Pung	100 00	
	Rent of shed	86 50	
	Reservoirs, repairs of . .	113 26	
	Salary of T. J. Casey (Chief) .	1,200 00	
	" " Assistant Engineers .	937 47	
	" " Clerk of Board . .	25 00	
	Supplies at houses (brooms, brushes, oil, matches, etc.) .	363 45	
	Supplies for Chemical engine .	40 48	
	Veterinary surgeon and medicines	81 42	
	Washing clothing . . .	283 90	
	" battery-room floor .	24 00	
	Water	6,295 00	
As per item No. 7 of expenses			$59,641 15

Health Department.

Amount appropriated	$1,500 00
Estimated revenue	100 00
	$1,600 00
Deduct amount transferred from	173 10
	$1,426 90

RECEIVED.

For expenses of contagious disease, as per item No. 8 of receipts	$83 01	

EXPENDED.

For Analysis of water	$15 00	
Bedding, destroyed	10 00	
Burying animals	38 00	
Car-tickets	15 00	
Clerk of Board	150 00	
Directory	2 50	
Expressage	15	
Expense protection of health	45 00	
Hand-stamp repairs	2 50	
Legal services	70 00	
Medicines	2 70	
Printing and stationery	48 05	
Postage-stamps	10 00	
Salary of health officer	1,000 00	
Vaccinations	18 00	
As per item No. 8 of expenses		$1,426 90

Incidental Expenses.

Amount appropriated	$5,000 00
Estimated revenue	30,000 00
	$35,000 00
Deduct amount transferred from	$3,570 29
	$31,429 71

RECEIVED.

For Armory rent from State	$800 00
Court fees	1,547 90
Fees, collector	854 09
Fees, city clerk	1,526 40
Fees, sealer	301 32
Fees, weighers	245 04
Fees, milk inspector	263 50
Gas used in rented rooms	40 32
Grease licenses	115 00
Liquor licenses	32,425 00
Release	100 00
Rent of public buildings	439 32
Sale of furniture	8 00
Sale of old buildings	115 00
As per item No. 9 of receipts	$38,780 89

EXPENDED.

For Advertising		$372 33
Assessors, assistant		1,045 75
Assessors, clerical assistants to		1,128 75
Assessors, carriage-hire		78 00
Bells, ringing		151 00
Births, census of		360 00
Bathing-places, repairs of		66 39
Bridge statue (foundation, etc.)		375 68
Building, old (paid Julia Rourke for)		75 00
Carriage-hire		198 25
Car-tickets		635 00
Cemetery, Ward One, superintendent		12 00
Cemetery, Ward One, repairing fence	$44 64	
Cemetery, Ward One, painting fence	70 00	
Amounts carried forward,	$114 64	$4,498 15

Amounts brought forward,	$114 64	$4,498 15
For Cemetery, Ward One, clearing up	140 00	
		254 64
Centennial books		120 00
Childs, Chas. S. (expenses of assault upon, physicians and nurse)		436 00
City Documents, binding		3 25
Clocks, city, care and repair of		240 82
Coal, weighing		99 44
Counterfeit Detector		3 00
Care of fires		40 00
Damages awarded Grace Ruddock	$25 00	
Damages awarded Page & Gove	15 25	
Damages awarded John L. Hellman	175 00	
Damages awarded Elizabeth J. Sandison	100 00	
Damages awarded Daniel McSweeney	15 00	
		330 25
Deaths, returns of		7 50
Decoration day		850 00
Declaration, copies of		12 85
Deeds, abstracting and recording		215 27
Directories		17 00
Executions against the city, as follows:		
Arvilla S. Thayer	$211 18	
Mary A. Gleason	2,595 73	
Judge Rapello	28 52	
Mary McCabe	1,884 31	
Daniel McNamara	25 25	
Patrick Carney	75 25	
Estate of John C. Gray,	141 80	
T. S. Hittinger	630 43	
Amounts carried for'd,	$5,592 47	$7,128 17

Amounts brought for'd,	$5,592 47	$7,128 17
John J. Leahy . .	110 41	
Jennie E. Freeman .	250 25	
	———	5,953 13
For Expressage		37 70
Flags, and repairs of . . .		122 30
Fees returned to J. H. Farrell (milk inspector) . . .		263 50
Goffe's cove, cleaning . . .		34 34
High-School exhibition . . .		50 00
Indexing		100 00
Invalid tax-titles		83 33
Legal expenses (witness fees, blanks, etc.)		516 16
Mill-pond (labor and repairs) .		44 95
Newspapers		18 00
Notices, serving		25 00
Page to Common Council . .		50 00
Physician, City		83 33
Paving in front of public buildings,		25 75
Painting signs		14 44
Post-office boxes . . .		8 00
Rent of halls for caucuses . .		161 00
Refreshments for committees .		42 30
Records, examination of . .		12 00
Releases		59 74
Rifle range		659 03
Sale of lands (commissions and expenses upon) . . .		233 16
Sealing weights and measures, expenses		77 93
Shawshine-river hearing . .		433 63
Secretary of Sinking-Funds . .		25 00
Sinking-Funds, Treasurer of, extra salary		200 00
Safety deposit vaults, rent of .		70 00
Somerville tax on poor-house farm,		838 34
Amount carried forward . .		$17,370 23

Amount brought forward			$17,370 23
For Stamps, hand, repairs of			9 50
Statutes, Massachusetts			8 55
Telegrams			1 80
Tool-box			1 25
Treasurer, clerical assistance			3,117 90
Voting-lists			28 00
Vignette for letter-head			138 49
Ward officers			250 00
Ward-rooms, care of			89 19
Ward-rooms, gas used in			1 37
Ward-rooms, furniture for			12 00
City Hall: —			
Awnings	$14 00		
Cleaning	604 80		
Decoration, — guns and drum	53 00		
Flags, repairs of	1 25		
Fuel	309 05		
Furniture and repairs	244 38		
Gas	344 21		
Hand-stamp repairs	16 50		
Ice	73 85		
Janitor	1,116 65		
Repairs: —			
Carpenters'	209 54		
Mason-work	17 62		
Painting and frescoing,	734 93		
Roof	187 00		
Plumbing	13 78		
Gas-fitting	6 50		
Heating apparatus	23 59		
Burglar alarm	2 74		
General	25 47		
Supplies	183 79		
Water	88 00		
		4,270 65	
Amount carried forward			$25,298 93

Amount brought forward . .			$25,298 93
Central Square Building: —			
Gas . . .	$241 85		
Fuel . . .	311 10		
Furniture repairs .	1 00		
Janitor . . .	1,140 00		
Repairs . . .	617 40		
Supplies . . .	37 87		
Water . . .	173 70		
		2,522 92	
Ward One Building: —			
Gas . . .	$595 89		
Fuel . . .	921 68		
Furniture repairs .	10 67		
Janitor . . .	1,140 00		
Repairs . . .	764 00		
Supplies . . .	14 37		
Water . . .	161 25		
		3,607 86	
As per item No. 9 of expenses . . .			$31,429 71

Interest.

Amount appropriated		$182,000 00
Estimated revenue		3,000 00
		$185,000 00
Add amount transferred to		4,908 33
		$189,908 33

RECEIVED.

On taxes, assessments, etc., as per item No. 10 of receipts . .	$7,467 97

EXPENDED.

For Interest on Dowse Institute Fund,	$300 00
Registered Bond of Sinking-Fund,	3,000 00
Daniel White Charity Fund .	300 00
Amount carried forward, . .	$3,600 00

Amount brought forward . .	$3,600 00	
For Funded Loan	170,715 00	
Cambridge Public Library note .	60 00	
Sanders Temperance Fund .	600 00	
Over-drafts on First National Bank	53 08	
Temporary loan . . .	14,880 25	
As per item No. 10 of expenses . . .		$189,908 33

Interest on Water Loan.

Amount transferred from Water Works, rates, fines, etc.	$88,585 00
Additional appropriation	219 00
	$88,804 00

EXPENDED.

As per item No. 11 of expenses . . .	$88,804 00

Lighting Streets.

Amount appropriated	$28,000 00
Add amount transferred to	1 16
	$28,001 16

RECEIVED.

For Old materials	$10 00	
Damages to lamps . . .	15 00	
As per item No. 11 of receipts .	$25 00	

EXPENDED.

For Alcohol	$152 46	
Blank-book	8 00	
Burners, adjusting . . .	130 90	
Carriage-hire	16 50	
Car-tickets	10 00	
Directory	2 50	
Amount carried forward . .	$320 36	

Amount brought forward . .	$320 36	
For Expressage	9 00	
Gas	18,167 66	
Glass	452 25	
Glazing	7 95	
Glycerine	241 50	
Hardware	2 25	
Ladders, repairs of . . .	1 75	
Lamp-cocks	104 86	
Lamps, care of	6,655 06	
Lamps, repairs of . . .	345 54	
Lamp-posts and repairs . .	491 34	
Oil and matches . . .	210 43	
Oil-can	75	
Piping	260 20	
Printing	6 75	
Putty	1 48	
Salary of Superintendent . .	500 00	
Signs	1 75	
Stone fenders	51 50	
Supplies	2 65	
Torches	18 00	
United States Street Lighting Co.	148 13	
As per item No. 12 of expenses . . .		$28,001 16

Loan (Temporary).

RECEIVED.

For City notes issued during the year, as per item No. 13 of receipts	$600,000 00

EXPENDED.

For City notes due and paid Oct. 11, 12, and 13, as per item No. 13 of expenses . . .	$600,000 00

Loan Payable from Taxes of 1884.

RECEIVED.

For City notes issued during the year, as per item No. 13 of receipts	$155,000 00

Loan Payable from Taxes of 1883.

EXPENDED.

For City notes, due and paid Oct. 10, 1883, as per item No. 14 of expenses . . . $100,000 00

Loan (Building).

RECEIVED.

From Commissioners of the Sinking-Funds, included in item No. 22 of receipts . . $119,000 00

EXPENDED.

For matured Building Loan bonds, as per item No. 16 of expenses $119,000 00

Loan (Funding).

RECEIVED.

From Commissioners of Sinking-Funds, included in item No. 22 of receipts $216,000 00

EXPENDED.

For matured Funding Loan bonds, as per item No. 15 of expenses $216,000 00

Loan (Lowland).

RECEIVED.

From Commissioners of Sinking-Funds, included in item No. 22 of receipts $270,000 00

EXPENDED.

For matured Lowland Loan bonds, as per item No. 17 of expenses $270,000 00

Loan (Water.)

RECEIVED.

From Trustees of Sinking-Fund of Water Works, included in item No. 23 of receipts . . $55,000 00

EXPENDED.

For matured Water Loan bonds, as per item No. 18 of expenses	$55,000 00

Pauper Department.

Amount appropriated	$10,000 00
Estimated revenue	3,700 00
	$13,700 00
Add amount transferred to	1,169 84
	$14,869 84

RECEIVED.

For aid to and burial of paupers, as per item No. 14 of receipts . . .	$5,057 60

EXPENDED.

For Boots and shoes . . .	$155 85	
Board	7,160 21	
Car-tickets and fares . . .	213 59	
Clerk	250 00	
Directories	17 75	
Expressage	90	
Fuel	842 17	
Flour	240 00	
Fee for furnishing nurse . .	2 00	
Groceries	713 04	
Guide (Snow's) . . .	3 25	
Hand-stamps	7 00	
Ice	6 00	
Medical attendance . . .	37 60	
Medicines	253 50	
Nurse	118 00	
Paupers, aid to	1,135 67	
Paupers, burial of . . .	379 50	
Amount carried forward . .		$11,536 03

Amount brought forward . .	$11,536 03	
For Provisions	77 75	
Printing	37 00	
Postage	7 98	
Rent of tenements . . .	858 39	
Supplies	8 04	
Secretary, P. C. Muzzey . .	673 33	
Secretary and visitor, V. Danforth,	1,500 00	
Stationery	80 92	
Telegrams	45	
Vaccine virus	3 84	
Washing	25	
Wagon repairs	81 61	
Weights-metric . . .	1 25	
Wood-preparing . . .	3 00	
As per item No. 19 of expenses .		$14,869 84

Pauper Department (Almshouse).

Amount appropriated		$12,000 00
Estimated revenue		3,500 00
		$15,500 00
Add amount transferred to		3,353 64
		$18,853 64

RECEIVED.

For Board of paupers . . .	$1,070 44	
Duplicate bill	8 86	
Discount on bills . . .	5 33	
Ledge and farm products . .	3,098 22	
Ship-fever patients . . .	104 52	
As per item No. 15 of receipts . .	$4,287 37	

EXPENDED.

For Advertising	$3 88	
Blacksmithing	59 50	
Amount carried forward . .	$63 38	

	Amount brought forward . .	$63 38
For	Boots and shoes and repairs .	304 31
	Bricks	10 80
	Beef	1,687 77
	Butter	492 10
	Car-tickets and fares . . .	7 68
	Chaplain, services of . . .	100 00
	Crockery	61 64
	Combs	4 32
	Clock-repairs	1 50
	Crackers and cheese . . .	30 93
	Carpet-beating	7 07
	Cows	260 00
	Dry goods and clothing . .	686 04
	Directory	2 50
	Disinfectants	55 52
	Expressage	9 30
	Fish	473 01
	Fuel	2,350 63
	Flowers	10 00
	Gas	187 24
	Groceries	2,144 55
	Hardware and tools . . .	115 50
	Hay and grain	327 67
	Horse-clipping	3 00
	Ice	70 00
	Ice-cream	5 00
	Labor, as per pay-roll . .	2,464 91
	Lumber, lime, and cement .	161 57
	Labor on ledge	791 15
	Labor on farm	270 97
	Manure	103 50
	Mattresses	4 50
	Mason-work	71 80
	Medicines	179 44
	Music-teacher	4 50
	Nurse	92 99
	Amount carried forward . .	$13,616 79

	Amount brought forward . .	$13,616 79
For	Newspapers	18 75
	Oil	19 60
	Organist	100 00
	Provisions	2,152 40
	Presents	7 00
	Power	119 60
	Pigs	20 00
	Repairs, heating apparatus .	516 70
	Repairs, carpenter-work . .	66 48
	Repairs of carriages . .	96 35
	Stove	44 00
	Shoe-findings	22 00
	Soap	225 00
	Stationery	1 45
	Stamp, hand	1 00
	Seeds	11 40
	Scissors	3 64
	Spectacles	9 25
	Sealing weights and measures .	2 24
	Supplies	42 94
	Tin ware	30 10
	Tobacco	90 55
	Thread	23 21
	Veterinary surgeon . . .	40 00
	Warden's salary . . .	1,000 00
	Washing	163 25
	Water	352 80
	Wooden ware	57 14
As per item No. 20 of expenses .		$18,853 64

Pauper Department, House Offal.

Amount appropriated	$2,500 00
Estimated revenue	5,500 00
	$8,000 00
Add amount transferred to	1,776 50
	$9,776 50

RECEIVED.

For Offal, as per item No. 16 of receipts,		$5,819 55

EXPENDED.

For Harnesses, repairs of	$141 15	
Hay and grain	1,093 51	
Horse-shoeing	283 27	
Labor, as per pay-roll	8,156 55	
Paints	14 69	
Wagons, repairs of	64 83	
Wheelwright	22 50	
As per item No. 21 of expenses		$9,776 50

Police Department.

Amount appropriated		$60,600 00
Estimated expenses		5,000 00
		$65,600 00
Add amount transferred to		2,501 37
		$68,101 37

RECEIVED.

For Conveying prisoners	$6 15	
Court fees	2,811 37	
Sale of old materials	2 10	
Use of wagon, stakes, and ropes	13 00	
As per item No. 17 of receipts	$2,832 62	

EXPENDED.

For Advertising	$1 00
Animals (burying)	1 00
Battery (repairs)	2 00
Buttons, badges, straps, and wreaths	43 25
Amount carried forward	$47 25

	Amount brought forward . .	$47 25
For	Carting liquors	2 00
	Carriage-hire	5 00
	Cleaning stations	101 62
	Clocks, repairs of . . .	7 50
	Directories	20 00
	Expressage	2 90
	Electric bell	9 00
	Food for prisoners . . .	64 34
	Fuel	246 09
	Furniture and repairs . . .	90 00
	Gas	704 88
	Gas-fittings	2 26
	Hay and grain	205 54
	Harnesses and repairs . . .	25 90
	Horse-shoeing	77 07
	Horse-hire and boarding . .	214 20
	Ice	30 28
	Medical attendance . . .	10 10
	Policemen, salaries of . . .	63,774 05
	Professional services (witnesses, etc.)	11 00
	Printing	8 50
	Poles (telegraph and telephone) .	43 95
	Repairs at stations . . .	410 55
	Repairs on telephone and telegraph,	3 50
	Repairs, vehicles	61 27
	Rent of telephone . . .	100 00
	Removing body	1 00
	Removing ashes	8 50
	Salary of F. W. Hagar (Chief) .	1,600 00
	Supplies for stations . . .	59 42
	Stoves	28 85
	Speaking-tubes	3 80
	Strapping clubs	2 25
	Stamps	18
	Travelling expenses . . .	16 95
	Amount carried forward . .	$67,999 70

Amount brought forward . .	$67,999	70
For Telegrams	3	44
Telephoning	1	25
Tripods	3	12
Washing	13	12
Water-rates	41	00
Wire	39	74
As per item No. 22 of expenses . .		$68,101 37

SALARIES.

Amount appropriated	$22,366	66
Deduct amount transferred from	186	29
	$22,180	37

EXPENDED.

Paid James A. Fox, mayor . .	$1,800	00
Justin A. Jacobs, city clerk .	3,000	00
Walter W. Pike, asst. clerk .	1,200	00
William W. Dallinger, city treasurer	3,000	00
William W. Dallinger, treasurer of sinking-funds . . .	283	34
F. Perrin, city auditor . .	1,750	00
John McDuffie, clerk of committees	1,966	66
W. W. Pike, Clerk of Common Council	183	33
J. Warren Cotton, Clerk of Common Council	16	67
Francis L. Pratt, messenger .	1,466	67
A. Z. Brown, assessor . .	1,300	00
A. J. Green, assessor. . .	1,300	00
E. B. Whitman, assessor . .	1,083	34
J. G. Gooch, assessor . .	216	66
John W. Hammond, city solicitor,	2,000	00
Amount carried forward . .	$20,566	67

Amount brought forward . .	$20,566 67	
Paid B. F. Nourse, sealer of weights and measures	350 00	
John H. Farrell, inspector of vinegar	175 00	
John H. Farrell, inspector of milk,	175 00	
City physicians	913 70	
As per item No. 23 of expenses . .		$22,180 37

School Department (Drawing Schools).

Amount appropriated	$750 00
Deduct amount transferred from	1 00
	$749 00

EXPENDED.

For Janitor	$16 00	
Teachers' salaries, as per pay-roll .	733 00	
As per item No. 24 of expenses		$749 00

School Department (Incidental Expenses).

Amount appropriated	$1,800 00
Deduct amount transferred from	550 60
	$1,249 40

EXPENDED.

For Advertising	$25 75	
Binding books, charts, etc. . .	63 35	
Chemicals, etc.	18 05	
Collecting statistics	6 00	
Expressage	1 15	
Fares	42 20	
Fountain rubbers	8 00	
Amount carried forward . .	$164 50	

Amount brought forward	$164 50	
For Librarian	235 00	
Lithographs	124 72	
Page to School Committee	20 00	
Piano-tuning	14 00	
Printing	372 74	
Postage	6 29	
Ribbons	12 15	
Secretary of School Committee	300 00	
As per item No. 25 of expenses		$1,249 40

School Department (Salaries).

Amount appropriated	$144,000 00
Estimated revenue	1,000 00
	$145,000 00
Deduct amount transferred from	542 40
	$144,457 60

RECEIVED.

Hopkins Fund income	$779 62	
Tuition of non-resident pupils	227 00	
As per item No. 18 of receipts	$1,006 62	

EXPENDED.

For Superintendent of schools, salary,	$2,700 00	
Teachers, salaries of	139,057 60	
Truant-officers, salaries of	2,700 00	
As per item No. 26 of expenses		144,457 60

School Department (Text-Books and Stationery).

Amount appropriated	$3,700 00
Deduct amount transferred from	844 51
	$2,855 49

EXPENDED.

For Books	$2,113 01	
Stationery	742 48	
As per item No. 27 of expenses		$2,855 49

School-Houses (Care and Repairs).

Amount appropriated	$24,500 00
Add amount transferred to	4,446 83
	$28,946 83

RECEIVED.

From Error in pay-roll	$25 00	
Sale of old material	32 60	
As per item No. 19 of receipts	$57 60	

EXPENDED.

For Bell-hanging	$5 12	
Black-boards	124 47	
Brushes and brooms	151 81	
Care of school-rooms in police building	59 36	
Clocks and repairs	80 75	
Castings	2 24	
Crockery	3 06	
Carpet, putting down	1 50	
Disinfectants	59 65	
Fuel	8,143 87	
Furniture and repairs	1,357 51	
Furniture-moving	80 10	
Gas	198 97	
Gas-fixtures	9 45	
Grading and other labor	11 00	
Hardware and tools	215 53	
Amount carried forward	$10,504 39	

Amount brought forward .	$10,504 39	
For Janitors	8,586 50	
Janitors' supplies . . .	105 63	
Lightning rods . . .	5 20	
Lumber	6 22	
Piping	130 04	
Paving	200 33	
Rent of school-rooms . .	183 46	
Repairs, carpenter-work .	2,270 14	
Repairs, black-boards . .	317 67	
Repairs, heating apparatus .	1,866 53	
Repairs, mason-work . .	1,034 04	
Repairs, plumbing . .	517 86	
Repairs, painting and glazing,	1,097 20	
Repairs, roofing . . .	116 68	
Repairs, general . . .	1,183 82	
Teaming	166 75	
Water	626 37	
Whitewashing . . .	28 00	
As per item No. 28 of expenses . . .		28,946 83

School-houses (New, and Furniture).

Amount appropriated		$17,000 00
Deduct amount transferred from . . .		446 55
		$16,553 45

EXPENDED.

For Architect of Lowell-st. School-house	$100 00	
Black-boards, use of . .	3 90	
Carriage-hire, viewing land .	3 00	
Copying specifications . .	1 62	
Contract for building Lowell-st. School-house . .	8,519 00	
Concreting cellar . . .	148 00	
Amount carried forward .	$8,775 52	

	Amount brought forward .	$8,775 52	
For	Furniture	1,676 52	
	Grading yard and extra labor .	245 33	
	Heating apparatus . .	552 49	
	Land for Lowell-st. School-house	2,472 60	
	Mason-work	207 64	
	Painting	18 05	
		$13,948 15	
	Finishing upper story of Gore School-house . . .	2,605 30	
As per item No. 29 of expenses . . .			$16,553 45

Sewers (Construction).

Amount appropriated		$13,000 00
Estimated revenue		7,000 00
		$20,000 00
Add amount transferred to		6,779 87
		$26,779 87

RECEIVED.

For	Assessments	$10,836 95	
	Entrance to sewer on Sparks st. .	48 38	
As per item No. 20 of receipts .		$10,885 33	

EXPENDED.

For	Bricks	$2,183 70	
	Catch-basins	777 91	
	Covers to catch-basins . . .	51 00	
	Castings	320 46	
	Cement	672 00	
	Carpenter-work	289 90	
	Drain-pipe	4,704 71	
	Amount carried forward . .	$8,999 68	

	Amount brought forward . .	$8,999 68	
For	Engine, use of	176 75	
	Expressage	3 75	
	Edgestones	47 13	
	Fuel	189 86	
	Hardware and tools, and repairs .	81 56	
	Hay and grain	31 15	
	Horse and buggy, use of . .	21 00	
	Inspector	220 50	
	Labor, as per pay-roll . . .	8,906 68	
	Lumber and sawing . . .	311 76	
	Overseer	565 00	
	Piles	172 98	
	Supplies	27 26	
	Sewer on Lambert avenue . .	1,734 12	
	Sewer on Grigg and Magee streets,	2,603 33	
	Sewer on Coggswell avenue . .	1,654 70	
	Stone-work	77 50	
	Teaming	931 76	
	Water	23 40	
As per item No. 30 of expenses . .			$26,779 87

Sewers (Maintenance).

Amount appropriated		$11,500 00
Estimated revenue		500 00
		$12,000 00
Deduct amount transferred from		504 26
		$11,495 74

RECEIVED.

For	Cleaning sewers	$1,673 56	
	Building manhole . . .	48 47	
	Gravel	3 50	
	Opening catch-basins . . .	51 55	
	Relaying drain	9 86	
As per item No. 21 of receipts . .		$1,786 94	

EXPENDED.

For	Blocks	$6 35
	Boots and clothing of rubber	80 20
	Bricks	387 35
	Car-tickets and fares	46 30
	Cement	227 20
	Cleaning sewers	661 87
	Castings	278 58
	Carpenter-work	426 17
	Carriage-hire	4 00
	Diaphragm for pump	2 85
	Dredging	2,709 60
	Expressage	1 15
	Fuel	31 15
	Freight	2 40
	Hardware and tools, and repairs	283 98
	Harness repairs	16 75
	Hand-cart	35 00
	Horse-shoeing	37 25
	Hay and grain	122 32
	Horse-hire	85 50
	Hand stamp	4 50
	Hose and hose nozzle	75 20
	Labor, as per pay-roll	3,934 85
	Labor on culvert	4 87
	Lumber	38 96
	Lithographs of sewer pipe	4 00
	Lamps and lanterns	16 80
	Lubricator	2 00
	Mirror plates	1 25
	Oiled clothing	14 25
	Overseer	742 75
	Paints and brushes	4 87
	Plumbing	4 44
	Pumps	37 45
	Pipe-drain	73 94
	Amount carried forward	$10,406 10

Amount brought forward	$10,406 10	
For Printing	6 10	
Paving	51 32	
Repairs of wagon and sled	63 32	
Robe	17 00	
Stone-work	101 17	
Shot	50	
Supplies	27 41	
Sleigh	45 00	
Shears	2 62	
Sewer inlet	11 75	
Teaming	452 49	
Wagon	150 00	
Wire (steel)	54 96	
Water	106 00	
As per item No. 31 of expenses		$11,495 74

Shade Trees and Public Grounds.

Amount appropriated	$2,500 00
Add amount transferred to	1,535 42
	$4,035 42

EXPENDED.

For Edgestones	$63 71	
Fence repaired	1,056 25	
Fixtures	3 26	
Flagstaff, repairs of	23 25	
Halyards	3 58	
Hardware	17 90	
Labor, as per pay-roll	1,767 12	
Ladder	8 00	
Lime	2 44	
Lumber	108 35	
Paints	15 99	
Printers' ink	5 85	
Amount carried forward	$3,075 70	

Amount brought forward .	$3,075 70	
For Pump, repairs of	6 85	
Rent of land for nursery . .	20 00	
Tablets, rebronzing . . .	33 80	
Tarred paper and rope . . .	6 64	
Trees and plants	257 90	
Water for fountains and hose . .	630 00	
Wire netting	4 53	
As per item No. 32 of expenses . . .		4,035 42

Sinking-Funds, Commissioners of.

Amount of funds, Nov. 30, 1882 . . .		$1,491,512 45

RECEIVED.

From City Treasurer, amount appropriated by the City Council .	$163,665 00	
Interest accumulations to Nov. 30, 1883	68,095 99	
Premiums received . . .	2,043 75	
		233,804 74
		$1,725,317 19

EXPENDED.

For Matured Building Loan Bonds,	$119,000 00	
" Funding Loan Bonds,	216,000 00	
" Lowland Loan Bonds,	270,000 00	
		605,000 00
Amount of Sinking-Funds, Nov. 30, 1883 .		$1,120,317 19

Sinking-Fund of Water Works, Trustees of.

Amount of fund, Nov. 30, 1882 . . .		$483,137 81

RECEIVED.

For Amount of revenue transferred from Water Works, rates, fines, etc.	$44,355 00	
Amounts carried forward .	$44,355 00	$483,137 81

Amounts brought forward .	$44,355 00	$483,137 81
For Interest accumulations to Nov. 30, 1883 . . .	24,404 14	
		68,759 14
		$551,896 95

EXPENDED.

For Matured Bonds	55,000 00
Amount of Sinking-Fund of Water Works, Nov. 30, 1883	$496,896 95

State Aid.

Amount appropriated	$500 00
Estimated revenue	15,276 00
	$15,776 00
Deduct amount transferred from . . .	1,911 50
	$13,864 50

RECEIVED.

For Allotment from Commonwealth,	$14,914 00	
Amount reimbursed from other cities and towns . .	162 00	
As per item No. 24 of receipts .	$15,076 00	

EXPENDED.

For Aid to paupers . . .	$228 00	
Clerical aid to committee .	240 00	
Indigent soldiers . . .	2,696 00	
Military aid	10,700 50	
As per item No. 35 of expenses . . .		$13,864 50

Stationery and Printing.

Amount appropriated	$3,000 00
Add amount transferred to	225 61
	$3,225 61

EXPENDED.

For Stationery	$1,048 66	
Printing	2,176 95	
As per item No. 36 of expenses		$3,225 61

Street Department (Paving).

Amount appropriated	$7,000 00
Add amount transferred to	158 96
	$7,158 96

RECEIVED.

For Bricks	$144 52	
Edgestones	171 82	
Flagging	37 55	
Paving entrance to Engine-house	27 76	
As per item No. 25 of receipts	$381 65	

EXPENDED.

For Bricks	$781 98	
Edgestones	139 75	
Gravel	18 68	
Labor, paving	4,299 97	
Paving-blocks	910 18	
Stone	42 93	
Stones, flagging	965 47	
As per item No. 37 of expenses		$7,158 96

Street Department (Repairs).

Amount appropriated	$74,700 00
Estimated revenue	500 00
	$75,200 00
Add amount transferred to	8,801 84
	$84,001 84

RECEIVED.

For Ashes and filling	$566 13
Bricks	663 49
Chopping-blocks	12 50
Colts and horses	440 00
Cracked stone	24 33
Curbstone	2 50
Iron	1 90
Old collars	5 50
Paving-blocks and sand	7 25
Repairing drain	2 50
Stone and paving	94 85
Trees	5 40
Use of team	10 50
As per item No. 26 of receipts	$1,836 85

EXPENDED.

For Advertising	$3 75
Brookline bridge, Causeway fence,	640 12
Belting	22 54
Blinds, window	1 75
Carriage-hire	44 00
Canvas	7 95
Car-tickets	20 00
Clock, repairs of	1 00
Cement	1 60
Edgestone	10 20
Expressage	65
Freight	43 21
Filling	309 21
Fuel	281 17
Glazing	1 00
Gas	101 53
Gas governor	18 00
Gravel screens	30 00
Gravel	730 98
Grading (First street)	75 00
Amount carried forward	$2,343 66

Amount brought forward . .	$2,343 66
For Hardware and tools, and repairs	498 50
Harnesses and repairs, and dressing	345 52
Hay and grain	3,949 49
Horse-shoeing	5 54
Horses	1,125 00
Horse-hire	27 50
Horse medicines	8 50
Iron and steel	82 38
Inspection of bulkhead, Brookline bridge	48 40
Iron plates and toggle block .	86 35
Iron-work	21 87
Labor, as per pay-rolls . .	47,088 15
Labor, extra	10 00
Lumber	1,105 25
Note for gravel (J. E. Cassidy)	2,717 46
Oil and grease	52 45
Opening catch-basins (in winter)	51 55
Packing	10 05
Painting signs	49 25
Paving-blocks	54 40
Pipe-fittings	6 90
Repairs of wagon and pung .	264 19
Repairs of crusher	9 56
Repairs of boiler	188 85
Repairs of Boston & Albany track,	76 97
Road machine	150 00
Relaying sewer	9 86
Rent of land	50 00
Relaying stone wall (Alvan G. Clark)	140 00
Salary of Superintendent . .	708 34
Salt	22 80
Storage	45 00
Stone	8,339 64
Amount carried forward . .	$69,693 38

Amount brought forward . .	$69,693 38	
For Stone-dust	53 55	
Sawing planks	21 32	
Supplies	126 34	
Teaming	7,605 25	
Teaming, gravel, etc. . .	6,149 32	
Veterinary surgeon . . .	152 00	
Water	200 68	
As per item No. 38 of expenses . . .		$84,001 84

Street Department (Watering).

Amount appropriated	$10,000 00
Estimated revenue	10,000 00
	$20,000 00
Add amount transferred to	4,989 20
	$24,989 20

RECEIVED.

For Watering streets, as per item No. 27 of receipts	$9,501 48

EXPENDED.

For Carpenter-work and lumber .	$80 12
Carts, repairs of . . .	28 38
Carts, use of	150 00
Duck	13 84
Engines and pumps, use of .	1,588 00
Fuel	245 66
Hose	76 50
Iron	55 44
Leather	23 45
Oak plank	13 44
Oakum	5 00
Oil	2 15
Amount carried forward . .	$2,281 98

Amount brought forward . .	$2,281 98	
For Packing	21 00	
Paints and hardware . . .	15 32	
Rent of wharves . . .	40 00	
Rims	4 25	
Salt water, arranging for use of	92 52	
Stand-pipe, moving . . .	26 50	
Stand-pipe, repairs of . .	3 00	
Tacks	1 00	
Valves and labor . . .	6 00	
Water	7,528 03	
Water-piping and supplies .	13 28	
Watering streets . . .	14,956 32	
As per item No. 39 of expenses		$24,989 20

Street Department (Widening).

Amount transferred to	$1,706 40

EXPENDED.

For building bulkhead on causeway to Brookline bridge, as per item No. 40 of expenses .	$1,706 40

Surrendered Estates (Care and Repairs).

Estimated revenue		$125 00
Deduct amount transferred from		74 50
		$50 50

RECEIVED.

For Rents	$253 64	
Use of land	5 00	
As per item No. 28 of receipts . .	$258 64	

EXPENDED.

For Fence, $\frac{1}{2}$ cost of	$14 50	
Shovelling snow	36 00	
As per item No. 41 of expenses		$50 50

Surrendered Estates (Sale Account).

RECEIVED.

For Payments on estates, as per item No. 29 of receipts	$6,450 29

EXPENDED.

For Brokerage, etc., on sales of land, as per item No. 42 of expenses	198 79
Net receipts	$6,251 50

Tax (Corporation).

RECEIVED.

From the Commonwealth, as per item No. 30 of receipts	$52,171 52

EXPENDED.

Amount paid to the Commonwealth, as per item No. 45 of expenses	31 83
Net receipts	$52,139 69

Tax (National Bank).

RECEIVED.

From the Commonwealth, as per item No. 31 of receipts	$20,781 44

EXPENDED.

Amount paid the Commonwealth, as per item No. 43 of expenses	5,838 40
Net receipts	$14,943 04

Tax (County).

Amount paid the County of Middlesex, as per item No. 44 of expenses	$26,208 53

Tax (State).

Amount paid Commonwealth, as per item No. 46 of expenses	$69,540 00

Taxes of 1878.

Amount uncollected Nov. 30, 1882	$7,198 27

RECEIVED.

Amount collected from sundry persons, as per item No. 32 of receipts	111 60
Balance uncollected Nov. 30, 1883	$7,086 67

Taxes of 1879.

Amount uncollected Nov. 30, 1882	$8,342 32

RECEIVED.

Amount collected from sundry persons, as per item No. 33 of receipts	86 80
Balance uncollected Nov. 30, 1883	$8,255 52

Taxes of 1880.

Amount uncollected Nov. 30, 1882	$8,032 48

RECEIVED.

Amount collected from sundry persons, as per item No. 34 of receipts	137 60
Balance uncollected Nov. 30, 1883	$7,894 88

Taxes of 1881.

Amount uncollected Nov. 30, 1882	$12,599 41

RECEIVED.

Amount collected from sundry persons, as per item No. 35 of receipts	3,097 92
Balance uncollected Nov. 30, 1883	$9,501 49

Taxes of 1882.

Amount uncollected Nov. 30, 1882	$64,448 68

RECEIVED.

Amount collected of sundry persons, as per item No. 36 of receipts	53,735 36
Balance uncollected Nov. 30, 1883	$10,713 32

Taxes of 1883.

Amount of assessors' original warrant	$885,452 28
Amount of assessors' supplemental warrant	453 88
	$885,906 16

RECEIVED.

Amount collected from sundry persons, as per item No. 37 of receipts	818,423 50
Balance uncollected Nov. 30, 1883.	$67,482 66

Tax Lien Account.

Paid to November 30, 1882	$16,928 55

EXPENDED.

For tax-title, as per item No. 47 of expenses	141 25
Paid to November 30, 1883	$17,069 80

Water Works (Construction).

Amount appropriated	$5,000 00
Add amount transferred to	730 50
	$5,730 50

EXPENDED.

For Cock	$7 00	
Freight	8 26	
Hydrants	198 95	
Iron pipes	2,240 89	
Lead	299 14	
Labor, as per pay-roll	1,088 42	
Meters	1,355 65	
Nozzles and valves	132 10	
Packing	14 17	
Swing valves	288 90	
Teaming	92 62	
Wharfage and labor	4 40	
As per item No. 48 of expenses		$5,730 50

Water Works (Maintenance).

Amount appropriated	$44,000 00
Add amount transferred to	1,371 60
	$45,371 61

EXPENDED.

For Advertising	$11 00	
Analysis and attendance (E. S. Wood)	85 00	
Bands	16 10	
Bellows	1 00	
Belting and oil	439 64	
Car-fares and tickets	173 90	
Carpenter-work	586 42	
Carriage and horse hire	111 00	
Castings and shafting	230 38	
Cement	15 00	
Clerical aid	1,000 00	
Clerk of Board	200 00	
Clock	1 00	
Amount carried forward	$2,870 44	

	Amount brought forward . .	$2,870 44
For	Cocks	20 78
	Conduit, examination of . .	6 75
	Copper frames	20 00
	Cracked stone	3 33
	Dam, building	15 00
	Dinners	117 25
	Directory	2 50
	Engineer, salary of, from June .	750 00
	Engineer, at Fresh Pond . .	149 88
	Engine and boiler at Fresh Pond,	1,630 00
	Expenses Mr. Raymond's funeral,	12 00
	Expressage	95 17
	Fitchburg R.R., use of train for repairs	62 50
	Fittings and packing . .	384 18
	Flooring stall	1 25
	Foreman, salary of, from July .	400 00
	Freight and carting . . .	1,092 12
	Fresh Pond wharf and building contract	2,692 38
	Fuel	5,104 63
	Galvanized wire	3 51
	Gas piping	8 26
	Gate boxes	42 64
	Grate bars	32 39
	Gauge repairs	1 50
	Hardware, tools, and repairs .	463 50
	Harnesses, repairing . . .	64 55
	Hay and grain	372 00
	Horse	200 00
	Horse, buggy, sleigh, etc. . .	363 00
	Horse, clipping . . .	3 00
	Horse-shoeing	107 16
	Horse, use of	7 00
	Horse and wagon, use of . .	15 00
	Hose	52 50
	Amount carried forward . .	$17,166 17

Amount brought forward		$17,166 17
For Hydrant boxes		85 19
Hydrant cocks		3 38
Inspectors		905 00
Iron-work		33 24
Inspirator at Fresh Pond		30 00
Labor, as per pay-roll		17,040 23
Lacing		1 45
Lime		1 15
Lumber and labor		301 12
Machine labor		80 21
Manure		29 40
Mason at reservoir		138 20
Meter repairs		149 08
Newspapers		53 29
Old iron		20 12
Packing		105 30
Painting		55 12
Paving, labor		295 61
Paving-stones		17 85
Photographs		10 00
Plumbing		34 21
Polishing composition		3 00
Postage-stamps		6 00
Pulleys and shafting		120 41
Pumping-engine, repairing		376 80
Pumps		977 50
Pumps, setting up at Fresh Pond,		344 60
Pump, use of		2 00
Putting up stove		1 80
Printing		68 75
Registrar, J. Warren Cotton, salary		2,000 00
Rent of office and shop		600 00
Rent of wharf		50 00
Rubbers (machine)		2 55
Salt hay for hydrants		21 12
Amount carried forward		$41,129 85

Amount brought forward . .	$41,129 85	
For Sealing	1 27	
Spindles	5 00	
Stable, repairs of . . .	2 75	
Stationery	163 87	
Stone	4 00	
Stones for dam	4 00	
Superintendent, H. Nevons, salary,	2,000 00	
Supplies	71 70	
Teaming	1,797 64	
Telegrams	91	
Telephone, repairing . . .	5 00	
Valves, repairing . . .	69 89	
Wagons, repairing . . .	87 10	
Waste	13 13	
Watchman	15 50	
As per item No. 49 of expenses		$45,371 61

Water Works (Rates, Fines, etc.).

RECEIVED.

For rates, fines, etc., as per item No. 38 of receipts,		$181,158 73
Deduct amount transferred to interest on Water Loan . . .	$88,585 00	
Deduct amount transferred to Sinking-Fund, of Water Works .	44,355 00	
Deduct amount transferred to Water Works, Construction . . .	5,730 50	
Deduct amount transferred to Water Works, Maintenance . .	45,371 61	
		184,042 11
Over expenditure		$2,883 38

EXPENDED.

For water rates refunded, as per item No. 50 of expenses	1,123 38
Excess of expenditure	$4,006 76

Water Works (Supplies).

RECEIVED.

For Supply pipes and fittings, as per item No. 39 of receipts		$6,053 86

EXPENDED.

For Labor, as per pay-roll	$1,532 41	
Pipe fittings	2,496 33	
As per item No. 51 of expenses		4,028 74
Balance unexpended		$2,025 12

Taxes.

The amount of taxes assessed by the Board of Assessors on the real and personal estates and polls of the City of Cambridge, for the year 1883, was as follows: —

Valuation of real estate	$39,821,700 00
Valuation of personal estate	11,975,640 00
	$51,797,340 00
Assessed at $16.40 per $1,000, gives	$849,476 37
14,870 polls, at $2.00	29,740 00
18 polls of women, 50 cts.	9 00
School-books	187 45
Bank stock (non-residents separately assessed),	6,039 46
	$885,452 28

This tax is divided as follows: —

For County assessments	$32,760 66
State assessments	44,835 00
State charge for non-resident bank stock,	6,039 46 2/5
[1] City purposes	801,817 15 3/5
	$885,452 28

[1] To meet the city expenses the income from various departments is added to this sum thus raised by taxation.

Abatements and Discounts upon Taxes for the past Six Years.

Year.	Total Tax.	Total Abatements.	Total Discounts at four per cent.	Amount of tax uncollected Dec. 1 of each year.	Amount uncollected Dec. 1, 1883.
1878	$935,227 04	$26,799 82	$30,061 05	$127,739 86	$7,086 67
1879	869,395 00	30,577 37	29,305 80	95,352 28	8,255 52
1880	826,079 23	17,142 79	28,383 13	72,534 65	7,894 88
1881	850,730 61	12,958 90	30,029 45	68,562 84	9,501 49
1882	873,793 41	12,230 20	30,783 78	64,448 68	10,713 32
1883	885,906 16	14,784 62	31,188 00	67,482 66	67,482 66

Number of Liquor Licenses granted in Cambridge, from 1875 to 1883 inclusive, and the amounts received for same.

Year.	No. of Licenses.	Amounts received.
1875	208	$25,125 00
1876	155	18,125 00
1877	165	26,475 00
1878	169	22,042 00
1879	127	15,504 00
1880	170	21,375 00
1881	155	19,675 00
1882	105	18,625 00
1883	200	32,425 00

Increase in the number of polls since last year . 948

948 polls, at $2.00 each	$1,996 00
Increase in the personal valuation	398,560 00
Increase in the real-estate valuation	730,500 00
Total gain on the total valuation	$1,131,056 00

Amount of Interest paid upon the Funded Loan for the past three years (not including the Water Loan).

1881	$187,680 00
1882	182,890 00
1883	170,715 00

Annual Expenses of the Various City Departments for the past Six Years.

CITY ACCOUNTS.	Expended. 1878.	Expended. 1879.	Expended. 1880.	Expended. 1881.	Expended. 1882.	Expended. 1883.
Abatements and Discounts	$51,974 90	$60,373 44	$46,215 27	$44,766 89	$43,013 98	$45,972 62
Bridges	6,697 55	2,639 73	2,292 18	2,519 16	5,902 84	2,345 30
Bridges (West Boston, Craigie, and Prison Point)	5,926 22	6,518 77	5,563 01	5,519 09	6,904 37	8,553 00
Cambridge Public Library	5,999 92	5,993 12	5,999 77	6,299 50	6,927 52	7,455 50
Cemeteries	10,360 03	9,393 18	10,256 81	11,587 69	13,644 25	15,908 73
Engineering	6,249 77	5,868 59	5,780 60	5,935 41	6,727 49	6,772 23
Fire Department	59,939 73	51,664 62	61,955 75	55,721 90	58,332 02	59,641 15
Health Department	1,332 43	1,316 08	1,290 16	1,697 10	1,795 84	1,426 90
Incidental Expenses	27,505 74	29,724 37	27,979 42	39,013 71	31,160 77	31,429 71
Interest	203,426 32	202,963 95	198,552 77	202,339 98	197,804 96	189,908 33
Interest on Water Loan	89,982 00	92,282 50	91,756 00	91,201 00	87,457 00	88,804 00
Lighting Streets	19,822 73	18,755 61	19,270 06	19,338 15	23,283 01	28,001 16
Pauper Department	21,320 59	16,773 57	15,162 69	17,331 43	14,114 38	14,869 84
Pauper Department (Almshouse)	16,653 95	15,885 88	16,581 59	16,402 54	22,284 63	18,853 64
Pauper Department (House Offal)	5,861 37	5,744 28	6,731 18	7,517 35	9,885 87	9,776 50
Police Department	65,395 66	59,848 49	56,083 61	57,013 33	61,896 64	68,101 37
Salaries	22,969 69	20,895 81	21,208 23	22,004 58	23,508 28	22,180 37
School Department (Drawing Schools)	687 09	722 17	705 50	751 68	854 00	749 00
School Department (Incidental Expenses)	4,953 08	1,383 90	1,369 31	1,318 83	1,608 78	1,249 40
School Department (Salaries)	133 491 20	132,570 49	130,371 75	132,501 10	151,239 55	144,457 60
School Department (Text-Books and Stationery)	3,135 41	3,272 12	3,450 87	3,107 45	3,659 18	2,855 49
School-houses (Care and Repair)	23,124 80	22,484 32	26,711 63	30,024 39	37,027 71	28,946 83
School-houses (New, and Furniture)	.....	.....	.....	.....	.....	16,553 45
Sewers (Construction)	5,742 22	4,968 07	3,308 01	9,489 67	24,459 11	26,779 87
Sewers (Maintenance)	3,795 98	2,842 59	10,554 40	8,011 96	10,711 26	11,495 74
Shade Trees and Public Grounds	3,531 04	3,599 43	3,640 10	1,993 47	2,566 36	4,035 42
Sinking-Funds	164,865 00	164,865 00	164,865 00	164,865 00	164,865 00	163,665 00
Sinking-Fund of Water Works	45,480 00	45,855 00	45,855 00	45,855 00	44,355 00	44,355 00
State Aid	27,314 95	21,662 37	18,429 69	18,155 25	16,902 79	13,864 50
Stationery and Printing	3,850 67	3,140 47	4,222 74	3,072 35	3,142 34	3,225 61
Street Department (Construction)	1,999 57	.....	.....	.....	.....	.....
Street Department (Paving)	6,996 30	5,124 64	5,993 76	6,444 51	11,357 19	7,158 96
Street Department (Repairs)	60,997 59	56,370 52	55,535 86	62,011 89	75,353 47	84,001 84
Street Department (Watering)	14,955 87	15,306 37	18,938 46	14,592 23	18,880 72	24,989 20
Street Department (Widening)	13,511 85	13,946 30	20,114 51	.....	.....	1,706 40
Surrendered Estates (Care and Repair)	2,507 15	3,082 56	1,469 27	530 77	122 68	50 50
Water Works (Construction)	12,752 55	4,424 56	25,234 04	6 824 81	16,959 12	5,730 50
Water Works (Maintenance)	25,229 06	25,993 08	25,865 49	23,833 89	28,870 06	45,371 61
Water Works (Rates, Fines, etc.)	994 24	1,566 96	1,413 63	1,072 79	1,299 02	1,123 34
Water Works (Supplies)	1,754 79	1,534 20	1,995 21	2,928 68	3,684 63	4,028 74
Totals	$1,207,635 70	$1,144,428 02	$1,163,162 33	$1,143,594 53	$1,232,561 82	$1,256,394 35

REPORT

OF

THE CITY TREASURER.

Office of City Treasurer, Dec. 1, 1883.

To the Honorable the City Council: —

The undersigned respectfully presents the annual report of the transactions of the City Treasury for the year ending November 30, 1883. From the detailed account hereto appended it will be seen that the

Cash balance in the treasury, Nov. 30, 1882, was		$63,387 87
Amount received during the year ending Nov. 30, 1883, was		2,714,582 63
		$2,777,970 50
The payments during the year amounted to		2,704,789 49
Leaving a balance in the treasury, Nov. 30, 1883, of		$73,181 01

Respectfully submitted,

WM. W. DALLINGER, *City Treasurer.*

City of Cambridge in Account Current from Dec. 1, 1882, to

Dr.

To authorized payments charged to City Accounts as follows: —

Abatements and Discounts	$45,972 62
Bridges	2,283 23
Bridges (West Boston, Craigie's, and Prison Point)	8,967 97
Cambridge Public Library	6,359 11
Cemeteries	15,452 30
Engineering	6,717 05
Fire Department	59,426 90
Health Department	1,435 60
Incidental Expenses	36,101 83
Interest	180,908 33
Interest on Water Loan	88,804 00
Lighting Streets	27,010 46
Loan, City	1,000 00
Loan, Funding	216,000 00
Loan, Water	51,900 00
Loan, Building	117,000 00
Loan, Low Land	267,000 00
Loan, Temporary	600,000 00
Loan, payable from Taxes of 1883	100,000 00
Pauper Department	14,760 98
Pauper Department (Almshouse)	18,791 11
Pauper Department (House Offal)	10,183 10
Police Department	67,408 35
Salaries	22,113 68
School Department (Drawing Schools)	716 00
School Department (Incidental Expenses)	1,201 45
School Department (Salaries)	143,442 60
School Department (Text-Books and Stationery)	2,390 20
School-houses (Care and Repairs)	28,365 59
School-houses (New, and Furniture)	16,095 07
Sewers (Construction)	26,384 44
Sewers (Maintenance)	11,391 79
Shade Trees and Public Grounds	3,809 79
Sinking-Funds	208,020 00
State Aid	13,915 75
Stationery and Printing	3,035 75
Street Department (Paving)	8,024 69
Street Department (Repairs)	84,840 67
Street Department (Watering)	25,344 95
Street Department (Widening)	1,706 40
Surrendered Estates (Care and Repairs)	50 50
Surrendered Estates (Sale Account)	198 79
Tax (Corporation)	31 83
Tax (National Bank)	5,838 40
Tax (County)	26,208 53
Tax (State)	69,540 00
Tax Lien Account	141 25
Water Works (Construction)	5,816 41
Water Works (Maintenance)	38,374 26
Water Works (Rates, Fines, etc.)	1,123 34
Water Works (Supplies)	4,184 42
Total payments	$2,704,789 49
Cash balance in the Treasury, Nov. 30, 1883	73,181 01
	$2,777,970 50

Nov. 30, 1883, with William W. Dallinger, *City Treasurer.*

Cr.

By Cash received and credited to City Accounts as follows: —

Bridges (West Boston, Craigie's, and Prison Point)	$214 55
Cambridge Public Library	2,182 26
Commissioners of Sinking-Funds	605,000 00
Cemeteries	11,342 12
Cemetery Fund	850 00
City Lands	13,702 81
Fire Department	908 65
Health Department	83 01
Incidental Expenses	38,780 89
Interest	7,467 97
Lighting Streets	25 00
Loan (Temporary)	600,000 00
Loan (Payable from Taxes of 1884)	155,000 00
Notes Receivable	23,028 50
Pauper Department	5,057 60
Pauper Department (Almshouse)	4,287 37
Pauper Department (House Offal)	5,819 55
Police Department	2,832 62
School Department (Salaries)	1,006 62
School-houses (Care and Repairs)	57 60
Sewers (Construction)	10,885 33
Sewers (Maintenance)	1,786 94
State Aid	15,076 00
Street Department (Paving)	381 65
Street Department (Repairs)	1,836 85
Street Department (Watering)	9,501 48
Surrendered Estates (Care and Repairs)	258 64
Surrendered Estates (Sale Account)	6,450 29
Tax (Corporation)	52,171 52
Tax (National Bank)	20,781 44
Taxes, 1878	111 60
Taxes, 1879	86 80
Taxes, 1880	137 60
Taxes, 1881	3,097 92
Taxes, 1882	53,735 36
Taxes, 1883	818,423 50
Trustees of Water Loan Sinking-Fund	55,000 00
Water Works (Rates, Fines, etc.)	181,158 73
Water Works (Supplies)	6,053 86
Total Receipts	$2,714,582 63
Cash balance in the Treasury, Dec. 1, 1882	63,387 80
	$2,777,970 50

WM. W. DALLINGER, *City Treasurer.*

REPORT

OF THE

COMMISSIONERS OF THE SINKING-FUNDS OF THE CITY OF CAMBRIDGE.

To the Honorable City Council: —

The undersigned, Commissioners of the Sinking-Funds of the City, in compliance with the ordinance, herewith present their eighth annual report: —

Amount of the funds December 1, 1882, was .		$1,491,512 45
Amount of interest received during the year on investments		72,154 47
Amount received from the City of Cambridge, derived from taxation		163,665 00
Amount received as premium on bonds sold .		2,043 75
		$1,729,375 67
Amount paid the City Treasurer of Cambridge to pay Funding Loan bonds due April 1, 1883 . . .	$216,000 00	
Amount paid the City Treasurer to pay Building Loan bonds due July 1, 1883 .	119,000 00	
Amount paid the City Treasurer to pay Lowland Loan bonds due July 1, 1883 .	270,000 00	
Amount paid as interest on prepayments from the city and accrued interest on securities purchased . .	4,048 48	
Amounts carried forward	$609,048 48	$1,729,375 67

Amounts brought forward	$609,048 48	$1,729,375 67
Amount paid as premium on bonds purchased . .	10 00	
		609,058 48
Leaving the amount of the funds, November 30, 1883, *all securities taken at par* . .		$1,120,317 19

The average rate of interest which the funds are now earning is 5.08.

SECURITIES BELONGING TO THE SINKING FUNDS, NOV. 30, 1883.

Cambridge Lowland Loan, six per cent. bonds, maturing April 1, 1884 . .	$26,000 00
Cambridge Building Loan, six per cent. bonds, maturing April 1, 1884 . .	23,000 00
Cambridge Bridge Loan, six per cent. bonds, maturing July 1, 1884 . .	10,000 00
Cambridge Funding Loan, six per cent. bonds, maturing July 1, 1884 . .	11,000 00
Cambridge Lowland Loan, six per cent. bonds, maturing Oct. 1, 1884 . .	2,000 00
Cambridge Funding Loan, six per cent. bonds, maturing July 1, 1885 . .	24,000 00
Cambridge Bridge Loan, six per cent, bonds, maturing July 1, 1885 . .	26,000 00
Cambridge Building Loan, six per cent. bonds, maturing July 1, 1885 . .	17,000 00
Cambridge Lowland Loan, six per cent. bonds, maturing July 1, 1885 . .	122,000 00
Cambridge Lowland Loan, six per cent. bonds, maturing July 1, 1886 . .	27,000 00
Cambridge Street-widening Loan, six per cent. bonds, maturing July 1, 1886 .	3,000 00
Cambridge City Loan, six per cent. bonds, maturing July 1, 1886 . . .	1,000 00
Cambridge Lowland Loan, five per cent. bonds, maturing Oct. 1, 1887 . .	120,000 00
Cambridge Sewer Loan, six per cent. bonds, maturing July 1, 1896 . .	11,000 00
Cambridge Street-widening Loan, six per cent. bonds, maturing July 1, 1904 .	90,000 00
Cambridge Sewer Loan, six per cent. bonds, maturing July 1, 1904 . .	2,000 00
Amount carried forward . . .	$515,000 00

Amount brought forward . . .	$515,000 00
Cambridge Street-widening Loan, six per cent. bonds, maturing July 1, 1905 .	14,000 00
Cambridge Sewer Loan, six per cent. bonds, maturing July 1, 1905 . .	49,000 00
City of Manchester, N.H., six per cent. coupon bonds, maturing April 1, 1884,	1,000 00
Town of Weymouth four per cent. bond, maturing April 1, 1884 . . .	5,000 00
City of Boston five per cent. registered bonds, maturing July 1, 1884 . .	1,000 00
City of Boston five per cent. coupon bonds, maturing July 1, 1884 . . .	2,000 00
City of Lynn five and one-half per cent. coupon bonds, maturing Aug. 15, 1884	4,000 00
State of Maine four per cent. coupon bonds, maturing Aug. 15, 1884 . .	19,000 00
State of New Hampshire six per cent. coupon bonds, maturing Sept. 1, 1884 .	2,000 00
State of New Hampshire six per cent. coupon bonds, maturing Sept. 1, 1884 .	1,000 00
City of Somerville six and one half per cent. coupon bonds, maturing Oct. 1, 1884,	5,000 00
City of Roxbury six per cent. coupon bonds, maturing Nov. 1, 1884 . .	2,000 00
Town of Waltham note, bearing four per cent. interest, due Jan. 5–8, 1885 .	2,000 00
City of Boston five per cent. registered bonds, maturing April 1, 1885 . .	5,000 00
City of Worcester six per cent. coupon bonds, maturing July 1, 1885 . .	3,000 00
State of Maine four per cent. coupon bonds, maturing Aug. 15, 1885 .	19,000 00
City of Boston five per cent. coupon bonds, maturing Jan. 1, 1886 . .	4,000 00
Town of Waltham note, bearing four per cent. interest, due Jan. 5–8, 1886 .	2,000 00
State of Maine four per cent. coupon bonds, maturing Aug. 15, 1886 . .	24,000 00
Town of Waltham note, bearing four per cent. interest, due Jan. 5–8, 1887 .	2,000 00
City of Boston five per cent. coupon bonds, maturing April 1, 1887 . .	1,000 00
Town of Woburn five per cent. bonds, maturing July 2, 1887 . . .	20,000 00
Amount carried forward . . .	$702,000 00

Amount brought forward . . .	$702,000 00
City of Somerville five per cent. coupon bonds, maturing Oct. 1, 1887 . .	19,000 00
Town of Waltham note, bearing four per cent. interest, due Jan. 5–8, 1888 .	2,000 00
Town of Winchester five per cent. coupon bonds, maturing April 1, 1888 . .	5,000 00
Town of Waltham note, bearing four per cent. interest, due Jan. 5–8, 1889 .	2,000 00
Town of Waltham note, bearing four per cent. interest, due Jan. 5–8, 1890 .	2,000 00
Town of Brookline four and one half per cent. coupon bonds, maturing July 1, 1890	19,000 00
Town of Scituate four per cent. bonds, maturing Jan. 1, 1891 . . .	20,000 00
Town of Waltham note, bearing four per cent. interest, due Jan. 5–8, 1891 .	2,000 00
Town of Waltham four per cent. coupon bonds, maturing Sept. 1, 1891 . .	46,000 00
United States four and one half per cent. coupon bonds, maturing after Sept. 1, 1891	57,000 00
Town of Arlington five per cent. coupon bonds, maturing Nov. 1, 1892 . .	6,000 00
City of Boston four per cent. coupon bonds, maturing Jan. 1, 1899 . .	50,000 00
City of Providence four and one half per cent. coupon bonds, maturing June 1, 1899	116,000 00
United States four per cent. registered bonds, maturing after July 1, 1907 .	60,000 00
United States four per cent. coupon bonds, maturing after July 1, 1907 .	300 00
City of Cambridge (gravel) note, bearing no interest, maturing July 1, 1884 .	2,717 46
Cash on deposit and drawing interest in the First National Bank of Cambridge	9,299 73
	$1,120,317 19

The bonded city debt which the foregoing sinking-funds are expected to pay matures as follows, viz. : —

Apr. 1, 1884, Building Loan Bonds	$198,000 00
Apr. 1, 1884, Lowland Loan Bonds	240,000 00
July 1, 1884, Bridge Loan Bonds	94,000 00
July 1, 1884, Funding Loan Bonds	100,000 00
Oct. 1, 1884, Lowland Loan Bonds	56,000 00
July 1, 1885, Bridge Loan Bonds	26,000 00
July 1, 1885, Building Loan Bonds	17,000 00
July 1, 1885, Funding Loan Bonds	24,000 00
July 1, 1885, Lowland Loan Bonds	122,000 00
July 1, 1886, City Loan Bonds.	100,000 00
July 1, 1886, Lowland Loan Bonds	60,000 00
July 1, 1886, Street-widening Loan Bonds	7,000 00
Oct. 1, 1887, Lowland Loan Bonds	120,000 00
Apr. 1, 1889, City Loan Bonds	100,000 00
July 1, 1890, City Loan Bonds	20,000 00
Jan. 1, 1893, City Loan Bonds	150,000 00
July 1, 1893, Land Loan Bonds	10,000 00
July 1, 1893, Paving Loan Bonds	100,000 00
July 1, 1893, Street Loan Bonds	13,000 00
July 1, 1894, Paving Loan Bonds	130,000 00
July 1, 1895, Paving Loan Bonds	25,000 00
Oct. 1, 1895, Sewer Loan Bonds	20,000 00
July 1, 1896, Sewer Loan Bonds	29,000 00
July 1, 1903, Sewer Loan Bonds	136,000 00
July 1, 1903, Street-widening Loan Bonds	10,000 00
July 1, 1904, Sewer Loan Bonds	295,000 00
July 1, 1904, Street-widening Loan Bonds	90,000 00
July 1, 1905, Sewer Loan Bonds	144,000 00
July 1, 1905, Street-widening Loan Bonds	14,000 00
	$2,450,000 00

It is with much satisfaction that we are able to exhibit in this report so large a reduction of the debt of the city during the past year. After the redemption of $605,000 of city bonds, the fund shows a reduction of $371,195.26 from the amount of December 1, 1882.

The present municipal indebtedness, exclusive of the Water Debt, is $2,420,933, instead of $3,406,953, in 1877.

The assets of the fund now amount to $1,120,317.19, from which $688,000 of bonds maturing in 1884 will be paid, show-

ing October 1, 1884, the amount of $1,674,000 of City Debt paid by the Commissioners since 1877.

The total amount of debt outstanding October 1, 1884, after deducting assets on hand, will not probably exceed $1,127,000, unless an additional debt is meanwhile created.

This result shows a marked contrast with the financial condition of 1877, when the City Debt reached its maximum, and amounted to $3,406,953.

Respectfully submitted,

CHARLES H. SAUNDERS,
ROBERT DOUGLASS,
JOSEPH A. HOLMES,
K. S. CHAFFEE,
JOHN M. TYLER,
FRANK A. ALLEN,

Commissioners of the Sinking Funds of the City of Cambridge.

REPORT

OF THE

TRUSTEES OF THE SINKING-FUND OF THE CAMBRIDGE WATER WORKS.

To the Honorable the City Council: —

The undersigned, Trustees of the Sinking-Fund of the Cambridge Water Works, herewith submit the annual report of the fund committed by ordinance to their charge: —

The amount of the fund December 1, 1882, was		$483,137 81
There has been received, during the year, interest on investments amounting to		25,005 11
There has been received, during the year, from the City of Cambridge, an amount equal to 3 per cent. on outstanding water bonds		44,355 00
		$552,497 92
CONTRA.		
Amount paid as accrued interest on securities purchased for investment during the year	$187 22	
Amount paid as premium on securities purchased	413 75	
Amount of water bonds matured August 1, 1883, — funds passed to the City Treasurer with which to pay the same	55,000 00	
		55,600 97
Leaving the amount of the fund, November 30, 1883, all securities taken at par		$496,896 95

The following is a list of the securities belonging to the fund: —

Cambridge Lowland Loan, six per cent. coupon bonds, maturing April 1, 1884	$3,000 00	
Cambridge Water Loan, six per cent. coupon bonds, maturing April 1, 1887,	6,000 00	
Cambridge Water Loan, six per cent. coupon bonds, maturing April 1, 1888,	25,000 00	
Cambridge Water Loan, six per cent. coupon bonds, maturing May 1, 1889,	8,000 00	
Cambridge Water Loan, six per cent, coupon bonds, maturing July 1, 1890,	31,000 00	
Cambridge Water Loan, six per cent. coupon bonds, maturing May 1, 1891,	26,000 00	
Cambridge Water Loan, six per cent. coupon bonds, maturing July 1, 1892,	1,000 00	
Cambridge Water Loan, six per cent. coupon bonds, maturing April 1, 1895	37,000 00	
Cambridge Water Loan, six per cent. coupon bonds, maturing July 1, 1896	46,000 00	
Cambridge Water Loan, six per cent. coupon bonds, maturing July 1, 1897,	16,000 00	
Cambridge Water Loan, five per cent. registered bonds, maturing July 1, 1898	12,500 00	
		$211,500 00
City of Boston five per cent. coupon bonds, maturing April 1, 1885	8,000 00	
City of Boston five per cent. coupon bonds, maturing Jan. 1, 1886	1,000 00	
City of Burlington, Vt., six per cent. coupon bonds, maturing July 1, 1886	500 00	
City of New Bedford four per cent. coupon bonds, maturing Oct. 1, 1889	8,000 00	
City of Gloucester four and one half per cent. coupon bond, maturing July 1, 1890	5,000 00	
Town of Norwalk, Conn., four per cent. coupon bond, maturing at pleasure of town after Jan. 1, 1891	20,000 00	
Town of Hyde Park four per cent. bond, maturing July 1, 1891	5,000 00	
Amounts carried forward	$47,500 00	$211,500 00

Amounts brought forward . . .	$47,500 00	$211,500 00
City of Salem four per cent. coupon bonds, maturing July 1, 1892 . . .	17,000 00	
Town of Stoughton four per cent. coupon bond, maturing Aug. 10, 1893 . .	2,000 00	
City of Keene, N.H., four per cent. coupon bonds, maturing July 1, 1894 . .	5,000 00	
Town of Hopkinton four per cent. coupon bonds, maturing Oct. 1, 1894 . .	5,000 00	
City of Fall River four per cent. coupon bonds, maturing May 11, 1895 . .	9,000 00	
City of Keene, N.H., four per cent. coupon bonds, maturing July 1, 1895 . .	3,000 00	
Town of Stoughton four per cent. coupon bond, maturing Aug. 10, 1895 . .	2,000 00	
City of Fall River five per cent. coupon bonds, maturing May 1, 1898 . .	2,000 00	
Town of Arlington five per cent. coupon bonds, maturing July 1, 1898 . .	30,000 00	
Town of Pawtucket, R.I., five per cent. coupon bonds, maturing April 1, 1899,	25,000 00	
City of Providence four and one half per cent. coupon bonds, maturing June 1, 1899	3,000 00	
City of Boston four per cent. registered bond, maturing April 1, 1900 . .	4,000 00	
City of Fall River four per cent. coupon bonds, maturing Aug. 1, 1900 . .	13,000 00	
City of Providence five per cent. registered bonds, maturing July 1, 1906 . .	50,000 00	
United States four per cent. coupon bonds, maturing after July 1, 1907 . .	37,500 00	
Town of Winchester four per cent. coupon bonds, maturing May 1, 1908 . .	10,000 00	
Town of Beverly four per cent. coupon bonds, maturing July 1, 1911 . .	15,000 00	
Cash in First National Bank of Cambridge,	5,396 95	
		285,396 95
		$496,896 95

The bonded water debt, which the foregoing fund is expected to pay, matures as follows, viz. : —

July 2, 1886	$100,000 00
April 1, 1887	150,000 00
Amount carried forward	$250,000 00

Amount brought forward	$250,000 00
April 1, 1888	175,000 00
May 1, 1889	112,000 00
July 1, 1890	60,000 00
May 1, 1891	50,000 00
July 1, 1892	335,000 00
April 1, 1894	150,000 00
April 1, 1895	160,000 00
July 1, 1896	103,000 00
July 1, 1897	16,000 00
July 1, 1898	12,500 00
	$1,423,500 00

During the year $55,000 of our bonded Water Debt has matured, and the funds with which to pay the same have been paid into the City Treasury, to await the presentation of the bonds. It gives us much satisfaction to report that the City Council has at last acted favorably upon our request, made in a formal manner more than a year ago, relative to an adjustment of certain surplus receipts of the Water Works, which for a series of years had been diverted from this fund and paid into the City Treasury, for the purpose of meeting city expenditures. An order has been passed by both branches of the City Council and signed by the Mayor, which authorizes and directs the City Treasurer, in behalf of the City, to sign a note for $200,000 payable to "The Trustees of the Sinking-Fund of the Cambridge Water Works and their successors." Interest on this note, at the rate of four per cent. per annum, is to be paid annually by the City into this fund; but the principal of said note is not to be paid, either in part or whole, until all of the other assets of this fund are exhausted, unless the City at any time should desire to pay it. The result of this action of the City Council is, that a tardy act of justice has been performed, the law has been complied with, and the assets of this fund are to be $200,000 larger than the figures given in the foregoing report. All of which we feel is a subject for earnest congratulation.

JAMES A. FOX,
GEO. H. HOWARD,
WM. W. DALLINGER,
} *Trustees of the Sinking-Fund of Cambridge Water Works.*

REPORT

OF THE

TRUSTEES OF THE DOWSE INSTITUTE.

To the Honorable City Council of Cambridge: —

The Board of Trustees of the Dowse Institute respectfully transmit an attested copy of the annual report of its treasurer, which contains an exact account of the receipts and expenditures for the years 1882 and 1883.

A course of nine lectures, readings, and concerts was given this year in Union Hall: one lecture each by Rev. E. C. Bolles, Rev. David Swing, Hon. H. S. Washburn, Mr. Matthew Arnold, Prof. W. C. Richards, and Rev. H. B. Carpenter; readings by Prof. J. W. Churchill and Mr. J. J. Hayes; and concerts by the Beethoven Club, with Mrs. H. Allen and the Ruggles-st. Quartette.

Respectfully submitted,

W. W. WELLINGTON,
W. A. BULLARD,
FRANK A. ALLEN,
JAMES A. FOX,
GEO. H. HOWARD,
} *Board of Trustees.*

REPORT

OF THE

TRUSTEES OF THE BRIDGE CHARITABLE FUND.

The seventh annual report in relation to this fund, since its creation by the terms of the gift, is herewith presented.

The fund had already reached an amount sufficient to warrant payment of a small sum to the Overseers of the Poor at the end of the year 1881. This sum was tendered to that Board, and, by its vote, added to the existing fund as a further accumulation. The actual cash belonging to the fund remains on deposit in the Cambridgeport Savings-Bank, and the amount, Jan. 19, 1883, was $2,223.61. The amount of the fund, with its interest added, to January 19, 1884, will then have reached the sum of $2,319.08. Of the interest accruing in 1883, the sum of $63.64 will be due and payable to the Overseers of the Poor.

The amount to Jan. 19, 1884, will be	$2,319 08
The amount to Jan. 19, 1883, was	2,223 61
Increase	$95 47

The creation of this fund, by the late Levi Bridge, had its origin in the kindly sympathies of one who loved his fellow-men, and who gave what he had, that he might promote the happiness of the unfortunate poor. When the trust thus established shall, in the years to come, have grown to such proportions as to carry comfort to many waiting hearts, as in due time it must, then the memory of the generous donor will live in our local history; and it may truly be said that he has "built to himself a monument more enduring than brass."

JAMES A. FOX,
S. S. SLEEPER,
GEO. H. HOWARD,
} *Trustees.*

REPORT

OF THE

TRUSTEES OF THE SANDERS TEMPERANCE FUND.

The annual report of this Board is submitted below, it being the nineteenth since the establishment of the trust.

The duties of the Board are hardly other than nominal in their character, as the work required under the provisions of the Sanders bequest is done wholly by the missionary, Mr. Alonzo Stewart, whom this Board has continued in the office he has so long and unselfishly filled. He is vigilant in his watch over those who suffer from intemperate habits, and many such have been led into the right path through his guidance. Reports of his doings are from time to time made by him to the Board, and he is commended to the favorable notice of the next Board.

The fund, which was originally paid into the City Treasury, is represented by an authorized note of the Treasurer for the sum of $10,000, the interest of which, at the rate of six per cent. per annum, is paid to the missionary as a salary. His report is appended hereto.

JAMES A. FOX,
JOHN CLARY,
GEO. H. HOWARD,
GEORGE CLOSE,
JOHN G. THOROGOOD,
} *Trustees.*

REPORT

OF THE

SANDERS TEMPERANCE FUND MISSIONARY.

To the Trustees of the Sanders Temperance Fund: —

GENTLEMEN, — As we look back over the journey of another year, with its vast opportunities and responsibilities, which can only end with the ending of our mortal existence, and reflect upon the influence which will stretch on and on, long after we have gone to our reward, we are forced to exclaim, "Life is real, life is earnest." The labors of the year just ended, like those of the past, have not accomplished what the benevolent founder of this Christian mission had reason to expect; but he had no conception *then* of the almost insurmountable obstacles that *now* exist to render almost powerless the earnest and persistent efforts put forth by the advocates of reform. Not only is the vice of intemperance legalized, but the saloon and the bar-room made so attractive that our youth are insensibly lured to destruction.

My line of effort has been the same as in former years, keeping ever in mind the thought that my work has reference not only to the *present*, but the *future* and *eternal*, welfare of my brother-man. In accordance with the conditions of the bequest I have given my whole time to the required work of reforming those who have already entered the path that leads to death, and in deterring others from following in their footsteps.

With this object in view I have made direct personal appeals to more than twelve hundred and fifty persons, taken pledges of total abstinence from eighty unfortunate men and women brought before the court on complaint of drunkenness, and have distributed about twenty-five thousand pages of religious and

temperance literature; have been present at the House of Correction every Sabbath morning and conducted religious and Sabbath-school exercises in the female department, and have attended, on an average, four temperance meetings each week.

In carrying out the work of reform I have, in accordance with your instruction, been present at every session of the District Court but *two*, with the exception of one week's vacation, there to do, after personal examination into each case, what seemed for the best and highest interest of the unfortunate victims of intemperance.

My relations with the Court and Police Department have been for the entire year exceedingly pleasant, for which I tender my sincere thanks. These are, gentlemen, some of the methods which I have pursued, to carry out the express wishes of the founder of this noble enterprise, and, at the same time, meet *your* reasonable expectations. Seeming *failure* has followed many of my most earnest efforts, but I have been content to leave results with Him who orders all things wisely; and may He grant to each one of us the wisdom which will enable us to do better and more efficient work in this branch of His service the coming year.

All of which is respectfully submitted,

ALONZO STEWART,
Temperance Missionary.

REPORT

OF THE

OVERSEERS OF THE POOR.

CAMBRIDGEPORT, Dec. 26, 1883.

To the Honorable the City Council, of the City of Cambridge: —

GENTLEMEN, —The Board of Overseers of the Poor of the City of Cambridge herewith respectfully submits its annual report for the year ending November 30, 1883.

The system adopted in May, 1877, has been continued the past year with satisfactory results in the distribution of aid to the deserving poor, and securing, also, the largest yearly revenue for the City Treasury that has ever been received from this department.

The same ward members constitute the Board that were chosen in 1877, with the exception of the representative from the third ward. On February 1, Dr. Ezra Parmenter, a member of the Board since its organization, esteemed for his long and faithful service, was removed by death, and Knowlton S. Chaffee was elected by the City Council as his successor.

Subsequent to the decease of Dr. Obed C. Turner, the assistant City Physician appointed in January, 1880, who died on Oct. 30, 1882, Dr. Roswell C. Wetherbee performed the requisite duties until May 8, 1883, when Dr. Lewis L. Bryant was elected to the position by the Board, under the amendment of Dec. 27, 1882, of Chapter 25 of the Revised City Ordinances.

2,757 medical visits have been made since Nov. 30, 1882, on 445 patients outside of the Almshouse,— an increase of 99 patients and 162 visits over last year; 136 of this number had a legal settlement in Cambridge, and 89 were born in this city. Of the total number 186 were males and 259 were females. 16

women have been attended in childbirth, outside of the Almshouse; 46 patients have died outside of the institution; 45 persons have been vaccinated since May 8, 1883; 10 persons have been attended at the police stations, and one soldier examined for State Aid.

The Board has continued the practice of taking histories of the applicants for aid, and there are now on file, at the office in Central square building, Cambridgeport, 3,371 of these histories: 393 of them having been taken within the past year, embracing 965 persons, 292 of whom are settled in Cambridge, 234 in other cities and towns, and 439 are State paupers; 56 histories, also, have been revised, under the changes of the pauper laws, within the year.

The number of paupers supported by the city, at the various institutions during the past year, has been as follows: —

City Almshouse	239
State Almshouse	2
State Workhouse	1
State Reform School	3
State Industrial School	1
State Primary School	1
Middlesex House of Correction	2
State Lunatic Hospitals	52
	301

The expenditures for outside aid have been $14,869.84. Of this amount $6,783.57 have been expended for the support of the 52 insane at the State hospitals, who have a settlement in Cambridge, — a class of paupers which is largely increasing from year to year.

The receipts have been $4,980.38, leaving a total cost of $9,889.46, for the support of the poor outside of the Almshouse.

Almshouse.

Total number of inmates during the year	239
Total number present Nov. 30, 1883	131
Average monthly number	126½

The report of the warden, William E. Hough, shows that of the 128 inmates admitted during the year 117 entered on the

Overseers' permits, and 11 were sentenced by the Third District Court of Eastern Middlesex, at Cambridge; 86 of those admitted were males, 42 females; 8 boys have been sentenced to the Almshouse truant-school during the year. Of the 239 inmates present within the year 174 were adults, and 65 were minors.

There have been 115 discharged, 75 being males, and 40 females; 1 child has been sent to Thompson's Island School, 2 to Orphan Asylum, 1 to Pine Farm School, 2 taken by private families, and 1 adopted.

Included in the total number of inmates present November 30, 1883, are 22 of the chronic mildly insane class, 7 of whom are males, and 15 females. These are cases transferred, after careful investigation, from the State Lunatic Hospitals to the Almshouse. As a matter of economy to the city it might be wise to provide accommodations for a larger number of this class. This would require an addition to the Almshouse building.

The city school, which is under the care and control of the School Committee, has numbered 50 pupils during the year, and 23 were present at its close. Miss Julia S. Gushee continues as the teacher.

172 medical visits to the Almshouse sick have been made. There have been 13 deaths at the Institution during the year, mostly of chronic diseases; 8 of these were males, and 5 females; 62 patients have been treated in the hospital wards of the Almshouse, and 4 in the pest-house; 10 patients were present on November 30, 1883, in the Almshouse hospital wards; 2 women in the institution have been attended in childbirth. The hospital conveniences are necessarily limited, especially regarding a suitable building for cases of contagious disease.

A schedule of personal property of the Almshouse, as presented in detail, by the warden, shows a valuation of $14,251.65, — an increase of $108.67 over last year.

The expenditures for the Almshouse during the year have been $16,859.08, and the receipts have been $1,767.58, leaving a total cost of $15,091.50.

Farm and Ledge.

$5,649.78 have been realized from the sale of a part of the city-farm property, but the amount of taxes paid the city of Somerville during the past year has been $838.34, which is a slight reduction from the previous year. The line dividing Somerville from Cambridge runs through the centre of the city farm, leaving some of the buildings and the entire city ledge in the territory of Somerville. Two men are regularly employed on the quarry, and the inmates of the Almshouse have also assisted during the period when work on the farm has ceased, in accordance with the system which has been pursued during the past eight years. All able-bodied male paupers receiving outside relief are required to work on the ledge in return for aid received, and this relieves the city, oftentimes, entirely of such applicants.

The expenditures for the farm and ledge have been during the past year $1,623.60, and the receipts have been $2,597.01, leaving an excess of receipts over expenditures of $973.41.

House Offal.

This department, which is at present under the voluntary charge of the Board of Overseers, and not to be included in the expenditures for the care of the poor, has been managed as heretofore.

The expenditures during the year have been $9,776.50, and the receipts have been 5,819.55. Leaving a total cost of $3,956.95 for collection of the offal, an increase of $438.40 over last year.

Recapitulation.

Total expenditures, Almshouse, Farm and Ledge	$18,482 68
Total receipts	4,364 59
Net cost	$14,118 09
Total expenditures, exclusive of house offal	$33,352 52
Total receipts	9,344 97
Net cost care of the poor	$24,007 55

A reduction of $1,264.37 from last year.

Aggregate expenditures	$43,129 02
Aggregate receipts	15,164 52
Net aggregate expense to the city	$27,964 50

A reduction of $824.97 from last year.

Respectfully submitted,

JAMES A. FOX,
J. C. WELLINGTON,
SUMNER ALBEE,
GEO. D. CHAMBERLAIN,
CHAS. E. VAUGHAN,
K. S. CHAFFEE,

Overseers of the Poor of Cambridge.

ANNUAL REPORT

OF THE

TRUSTEES OF THE CAMBRIDGE PUBLIC LIBRARY.

To the City Council of Cambridge: —

GENTLEMEN, — The Trustees have the honor to present their annual report, being the twenty-sixth since the founding of the library, and the fifth under the title of the Cambridge Public Library.

The circulation of books during the past year gives evidence that the change of name has brought the library into wider notice as a free city institution.

The appropriation of this year has enabled us to purchase a larger number of books than during any previous year. We have also been able to obtain more English books, and to duplicate the most desirable recent American publications. The careful examination of all works of fiction placed in the library is still maintained. The list of books for the young, prepared by the Superintendent of our Public Schools, testifies to the abundant supply of the best reading afforded by our library.

The need of more room for the library, and better accommodation for its patrons, is becoming imperative. The purchases of this year have necessitated more book-cases. These have filled, to its utmost capacity, the library room. The return and delivery of books, issue of new cards, and other routine work, is now carried on under serious difficulties, and inconvenience to the employees and the public. If no generous private citizen comes to the rescue *within the coming year*, the city will find it necessary to provide other and larger rooms for its free library.

Another pressing want is an entire new catalogue. The library now contains 15,983 volumes. These are catalogued

by author and title, in five volumes, and seven cards issued during the past year. So many alphabetical lists make it almost impossible for one unfamiliar with the library to find the number of the book he wants.

The cost of consolidating these lists and printing a complete catalogue will not be less than $2,000. The work should begin at once, and the Trustees ask for an appropriation for this purpose.

Expenditures.

Salaries, Librarian, assistants, janitor, etc.	$2,364 64
Rent of rooms	1,000 00
Books, periodicals, newspapers	2,734 90
Gas, water-rates, ice	277 23
Printing, stationery	197 87
Binding and repair of books	526 27
Furniture (carpets, book-cases, etc.)	291 90
Repairs	13 18
Petty expenses — expressage, postage, etc.	49 47
	$7,455 50
Amount of appropriation	7,500 00
Balance unexpended	$44 50

One exchange having been made this year, the number of Histories of Cambridge in our hands is 136.

The annual report of the Librarian to the Trustees, containing the details of the working of the library, is herewith submitted.

The Board requests that $7,500 be appropriated for library purposes for the ensuing year, and $2,000 additional for the preparation of a new catalogue.

Respectfully submitted,

SAMUEL L. MONTAGUE,
JOHN S. MARCH,
GEORGE H. FOLGER,
CHARLES BULLOCK,
HERSEY B. GOODWIN,
JOHN CONLAN,
SAMUEL W. McDANIEL,
Trustees of Cambridge Public Library.

Note. — The signing of the above report, which he was unable to write, was the last official act of the late Secretary of the Board of Trustees, Mr. John Conlan. During the three years of his connection with the library he showed the warmest interest in its welfare, and was an active and painstaking member of the Board of Trustees, who will be much missed by his associates.

LIBRARIAN'S ANNUAL REPORT.

To the Trustees of the Cambridge Public Library: —

GENTLEMEN, — In their last annual reports the Trustees and the Librarian urged the need of better accommodations for the library. The close of another year finds us forced to resort to some changes, which will enable us to remain in the present rooms for a short time.

The new arrangement is, in one respect only, better for the public, while it increases the work of the attendants. The books must now be carried a greater distance by the "runners," and it is more difficult to consult the shelves, as the attendants are often asked to do, in selecting books on a given subject. The working of the present arrangement should be observed with regard to plans for a new building.

Many of our patrons, particularly ladies and elderly people, express the wish for a delivery-room on the street floor. The stairway is often noisy and disagreeable, because not easily controlled from above. In plans for the future this fact, also, should be considered.

During this year a large and valuable addition has been made to the library, in works of Biography, History, Travel, and Fiction. The most popular and best juvenile books have been duplicated.

The books on the list prepared by the Superintendent of Public Schools, not in the library, have been purchased, except a few too juvenile for our use. This list has received, and deserved, much attention and praise from teachers and librarians in all parts of the country. It reflects much credit upon the library, since the majority of the books were already on our shelves, showing that we had provided the best reading for children before our attention was thus directed to the subject.

However, no amount of good books *unread* will benefit our young people. Parents, as well as teachers, must encourage

such a choice of books as will benefit, as well as interest, children. With our present supply of the best reading we are prepared to meet a large demand, and it is to be hoped the library will become an increasing means of improvement and education to the young.

The constant wear and tear to which the most popular department of the library is subjected has necessitated a large purchase of works of fiction and juvenile books to replace those worn out. This item of expense must be considered in estimating the amount spent in purchasing books.

The new bookcases fill, to its utmost capacity, the library room. They will supply no more shelf-room than will be filled by the purchases of another year.

The consolidation of the five supplements, or the making of an entire catalogue, will require early attention. It might be well to obtain the estimate of some expert in catalogue work as to the expense of a new complete catalogue. Whatever course is decided upon, the work should be finished before the fall of 1884, unless postponed with a view to moving into new rooms.

During the year the reading-rooms have been well patronized, and the consultation of books of reference is increasing.

The statistics of the year are as follows: —

Books Issued.

First quarter,	21,955	Average per day	301
Second quarter,	22,670	" " "	297
Third quarter,	14,545	" " "	189
Fourth quarter,	18,127	" " "	235
Total	77,297	Daily average for the year . . .	256

In 1882, 78,934 volumes were issued.

Accessions.

First quarter,	Purchased	159	By gift and exchange,	13 .	172
Second quarter,	"	205	"	49 .	254
Third quarter,	"	88	"	4 .	92
Fourth quarter,	"	876	" and from income of Fay Legacy,	25 .	901
Total		1,328		91 .	1,419

Number of books in the library at close of 1882	14,564
Number now in library	15,983

Number of books replaced during the year (including some sets to be drawn upon at need) 567
Number of books purchased, including those replaced . . 1,895

Donors.

Hon. Leopold Morse	52	Miss H. E. Henshaw	1
Hon. S. L. Montague	1	Mrs. A. L. Moering	1
Hon. George P. Carter	2	Mr. Moses King	1
State of Massachusetts	10	Mr. John Conlan	1
Cobden Club	1	Mr. W. Stedman	1
City of Cambridge	1		

The Parmenter donation, of a large number of U.S. Public Documents, and other volumes, should be mentioned. Owing to our limited room they have not been placed upon the shelves.

Miscellaneous.

Postals sent for books overdue	2,723
Books lost	1
New cards issued	985
Number on new list of readers	3,170
Number on old list (Feb., 1883)	9,593
Books covered with paper	10,644
Number bound or repaired	3,552

Receipts.

From fines	$144 32
From sale of Catalogues	18 12
Total	$162 44

The City Treasurer's receipts for which are submitted.

The expense of a new catalogue should be remembered in asking for the next annual appropriation. The need of a new building for the library cannot be too often, nor too strongly, urged upon the attention of our citizens.

All of which is most respectfully submitted,

ALMIRA L. HAYWARD,

Librarian.

REPORT

OF THE

JOINT STANDING COMMITTEE ON PUBLIC PROPERTY.

The expenditures under the various heads of appropriations controlled by this committee, as was anticipated, are considerably larger than those of the preceding year. The increase of the cost of maintenance of the several departments of the city is unavoidable, and must keep pace with our municipal growth. Year by year the necessity for repairs and other outlays upon the city buildings becomes more and more urgent, and if unnoticed, or only partially met, must be followed by waste and decay. The present committee has felt the sense of duty, no less than its predecessors, of keeping the city property in thorough repair, that the committee of the next year might receive it in at least as good condition as it was at the close of the year 1882. The duties of your committee have increased in greater proportion than the expenses it has been called upon to incur, an almost daily demand having been made upon the attention of some one of its members during the year.

A large part of the time of the committee has been given to the consideration of the matter of the building of an additional Primary School-house in Ward One, which had been recommended, and its location suggested by the Superintendent of Schools in his last annual report.

In view of the responsibility placed upon your committee, with reference to the expenditure of the public money, it has endeavored, as far as practicable, to give all our citizens an opportunity for competition for the work required to be done,

and the purchases to be made; and it has also sought to distribute its city work among the residents of the different sections of the city, whenever it could be done without detriment to the public interest. Following are details of the various expenses incurred by this committee.

The amount of bills approved by the present committee and that of the preceding year — in which is included the item of fuel, amounting to $8,143.87 contracted for by the Committee on Fuel — is as given hereinafter.

Expenses under different Appropriations.

Fire Department, repairs upon engine-houses and furniture		$897 42
Incidental Expenses: —		
City Hall, care and repair	$4,270 65	
City buildings, care and repair	6,290 50	
Care of public clocks	166 32	
Bell-ringing	151 00	
Rifle range	659 03	
Old Burial-ground, Ward One	254 64	
Flags, new and repairing	121 80	
Halls for caucuses	161 00	
Miscellaneous	200 66	
		12,275 60
Pauper Department (Almshouse): —		
Repairs at Almshouse		215 98
Police, repairs at stations, and furniture		479 41
School-houses (care and repairs): —		
Fuel	$8,143 87	
Janitors	8,586 50	
Repairs and supplies	11,857 07	
		28,587 44
School-houses (new and furniture): —		
Lowell-st. school-house	$12,271 63	
Gore-st. school-house, finishing upper story	2,605 30	
Furniture, sundry school-houses	2,035 91	
		16,912 84
Shade trees and public grounds: —		
Water for drinking-fountains		630 00
Surrendered estates, care and repair		50 60
		$60,049 19
Less fuel bills approved by fuel committee		8,143 87
Amount of bills approved by this committee		$51,905 32

The cost of fuel is given in the foregoing statement for convenience, as showing the aggregate expenditure under the head of care and repairs of school-houses.

Following is a special mention of the various divisions of the work of this committee : —

Fire Department.

By request of the Committee on Fire Department, and in coöperation with the Chief Engineer, a considerable amount of work has been done at the different engine-houses, and furniture has been supplied. One important benefit was the construction of a new hose-trough in the basement of engine-house No. 3. Important changes are needed in this house, as the inconvenience of its arrangements, as adapted for fire purposes, has repeatedly been brought to the notice of this committee, by the Committee on Fire Department. But for the want of a sufficient appropriation the evil would have long since been remedied.

City Buildings.

Under this head are included the City Hall ; the two buildings respectively located in Brattle square, Ward One, and Central square, Ward Four ; and the building on North avenue occupied variously, for Police, Fire Department, and Ward purposes. These buildings require a continual outlay of money in their maintenance, and during the past year have all received repairs to a considerable extent.

The City Hall has been newly slated, the walls and ceilings of the Aldermanic and Council chambers have been frescoed, and nearly every other room in the building has been renovated by paint and coloring. All these buildings are in charge of efficient janitors, who are constantly employed, and who are faithful in their efforts to preserve, and also keep clean and comfortable, the public property in their care.

School-houses.

The necessity existing for an additional primary school-house in Ward One was urged in the last annual report of the Superintendent of Schools. The subject was duly considered by the

Committee on Finance in making up its budget for the year 1883, and an appropriation recommended therefor. Early in the year authority was given to this committee, by the City Council, to purchase a suitable lot of land in Ward One, and to erect a wooden school-house thereon.

In connection with a sub-committee from the School Board, and the Superintendent of Schools, your committee visited the neighborhood of the locality indicated by the School Committee, and examined several lots deemed eligible for the purpose. It was decided to purchase a lot on Lowell street, near Mount Auburn street. It has a frontage of 104 feet on the westerly side of said street, and contains an area of 12,003 square feet. The contract for building the school-house was awarded to Mr. David W. Power, for the sum of $8,519. He was the lowest of five bidders, and had previously built the Tarbell school-house in Ward Four, the work upon which was highly satisfactory.

The work thus awarded was duly completed by the contractor, and on the 10th of October last was accepted by the committee, after a careful inspection of the building had been made.

The entire cost was as follows: —

Land on Lowell street, 12,003 square feet	$2,472 30
School-house, complete	9,799 03
Total	$12,271 63

The plan of the building is the same as that of the Tarbell School-house, both houses being built from designs drawn by Mr. James Fogarty, Architect. The cost of the structure is given in detail below, viz.: —

Amount of contract	$8,519 00
Extra work by contractor	220 33
Furnaces and piping	552 49
Contract work on drain and vault	207 64
Concreting cellar	148 00
Grading	25 00
Miscellaneous expenses	126 57
	$9,799 03

In accordance with the recommendation of the Superintendent of Schools an appropriation was made by the City Council — as reported by the Committee on Finance — for finishing the third story of the Gore school-house, in Ward Three. The contract for this work was awarded to Mr. John Quinn, for the sum of $2,605.30, he being the lowest bidder. The rooms required were intended to correspond in general design with those in the stories below, and they were finished to the acceptance of the committee, and subsequently occupied for school purposes. The amount expended for this work was $2,605.30, in accordance with the contract.

The duty of superintending the construction of new school-houses, as imposed upon your committee, has, it is believed, been discharged with satisfaction to the School Department, while the outlay therefor has been kept within the limit of the sum appropriated. In the statement of expenditures hereinafter given, while the total amount expended under the two heads of appropriations — school-houses (care and repairs) and school-houses (new, and furniture) — agrees with the figures of the auditor, a comparison with his account will show a different distribution of the items which compose the respective accounts.

The appropriation for school-houses (care and repair) for the year 1883 was as follows: —

Amount originally appropriated	$24,500 00
Additional appropriation, including the unexpended balance from school-houses (new, and furniture)	4,446 83
Total	$28,946 83

Amount expended: —

General care and repairs, school-houses	$28,587 44	
Furniture, erroneously charged to this appropriation, and included in the figures given below	359 39	
		$28,946 83

The appropriation for school-houses (new, and furniture) in 1883 was: —

For School-house in Ward One	$13,000 00	
Gore school-house, finishing upper story	4,000 00	
Total		$17,000 00

Amount expended: —

For School-house in Ward One	$12,271 63	
Furniture for same	671 70	
Gore school-house, finishing	2,605 30	
Furniture for same	696 80	
Furniture for other school-houses	667 41	
Total		16,912 84
Balance unexpended		$87 16

Included in the additional appropriations for school-houses (care and repairs).

The increase of expense under the head of care and repairs of school-houses in the past year, over the footings of the preceding year, is shown as follows: —

Amount expended in 1883	$28,587 44
Amount expended in 1882	24,947 18
Increase	$3,640 26

Included in the above is the additional cost of fuel over that of 1882, amounting to $796.86, which, being deducted, leaves as the actual increase the sum of $2,843.76.

The amount expended for new school-houses and furniture in 1883 was	$16,912 84
In 1882	12,079 73
Increase	$4,883 11

This expenditure was anticipated, and ample provision made therefor.

The following classification exhibits the various expenditures

for care and repairs of school-houses in the year 1883, as compared with the cost of the same items in 1882 : —

Expenditures.

	1883.	1882.
Blackboards	$442 14	$81 06
Fuel	8,143 87	7,347 01
Furniture and repairs	1,078 22	871 66
Gas	198 97	166 58
Grading, gravel, and paving	356 83	353 81
Hardware and tools	215 53	213 45
Heating apparatus and repairs	1,866 53	1,426 22
Janitors	8,586 50	8,957 45
Rent of school-rooms	183 46	
Repairs of buildings and fences	6,341 26	4,641 44
Supplies, miscellaneous	320 15	254 84
Sundry expenses	227 61	28 60
Water	626 37	605 86
	$28,587 44	$24,947 98

While it was expected that the need of repairs upon our school buildings was general, the actual condition of the houses could not be known until an inspection should be made at the close of the summer term. It was then ascertained that very extensive repairs were necessary, the work of which could not be delayed. Among these may be mentioned the replacing of worn-out furnaces, the introduction of sanitary improvements, and painting and whitening. The boilers connected with the heating apparatus in the buildings heated by steam had not been inspected for three or more years, and it was deemed important that these should be carefully examined, the work of which revealed the necessity of a further outlay for repairs. Extensive inside painting was also found to be needed at the Allston and Harvard Grammar school-houses, the same having been neglected for several years. The condition of the out-buildings of some of the school-houses, particularly in the lately annexed portion of the city, was very unsatisfactory ; and this also required a remedy. At the Willard school-house the sanitary arrangements were such only in name, and its out-buildings were considered a nuisance to the school and the neighborhood. An urgent request was made by the School Committee, seconded

by the Board of Health, that the evils here existing should be be immediately remedied. Your committee accordingly contracted for a thorough reconstruction of the water-closets and drainage of this school-house, and the work has recently been completed, under the supervision of the city engineer.

A few of the items of the extra expense in this department are given hereunder: —

Inspection of boilers and repairs	$178 50
Kalsomining walls and ceilings	345 00
New fences	422 32
New Furnaces	614 24
Paving yards and sidewalks	200 33
Repairs and painting at Allston and Harvard Grammar school-houses	731 40
Sanitary improvements, Willard and other school-houses	1,011 67
	$3,503 46
Add increased cost of fuel	796 86
Total	$4,500 32

The yearly expenses of all our city departments must inevitably increase as improvements are demanded by the public wants, and the figures herein given and exhibited require no justification by this committee. No money has been spent in the direction herein indicated that could have been wisely withheld. There is yet considerable work to be done towards providing suitable drainage and ventilation for our public buildings, and for their comfortable heating. These improvements should not be delayed on account of their cost, although due efforts should be made as regards economy of expenditure.

Almshouse.

At the request of the Overseers of the Poor this committee visited and inspected the Almshouse, and took charge of repairs included in the schedule given hereinbefore. The attention of your committee was called to the small wooden building, on the Almshouse grounds, used as a pest-house. A report was made to the City Council in reference to this building, with the recommendation that it be pulled down, it not being worth repairing. There being no suitable accommodation for the sick

poor at the Almshouse, the erection of a building for the purpose will doubtless be a duty assigned to the Committee on Public Property of the next City Council.

Public Lands.

The matter of the sale of city lands was placed in charge of a Joint Special Committee early in the year, and a portion of the land was sold. The remainder is in charge of this committee, and an estimate of its value is given elsewhere in this report.

Surrendered Estates.

The sale of this species of city property has also been conducted by the special committee above referred to, and some of the estates disposed of. There is now only one estate owned by the city from which any income is received, all the lands with dwelling-houses thereon having been sold.

The receipts for rent in 1883 were	$258 64
Expenses	50 50
Balance	$208 14

No appropriation under this head is likely to be required in the future.

Mill-Pond Property.

A small parcel of land, fronting on Putnam avenue, taken from this estate, has been sold, for building purposes. During the summer of 1883 complaints were referred to this committee, from the residents near the mill-pond basin, of a serious nuisance occasioned by foul odors arising from the old basin between Western avenue and River street. A hearing was accorded to the complainants, and the committee subsequently visited the premises, in connection with members of the Board of Health. Parties found to have drains flowing into the mill-pond basin were required to discontinue such drainage, and the endeavor was made to improve the appearance of the territory by causing the ashes collected in the vicinity to be dumped about the edges of the basin. It is believed that the evils complained of as existing about the borders of the mill-pond have, to a great extent, been remedied. The old mill on River street, which had

so long been a conspicuous landmark in this part of the city, was found on examination to be in such a decayed and dangerous condition that it was deemed necessary to take it down. The rubbish and other obstructions at the entrance to the mill-pond were removed, and the tide is now permitted to flow in and out of the basin, thus removing any filth that might otherwise accumulate therein to the annoyance of the neighborhood.

The total area of the mill-pond lands is about 315,000 square feet, or upwards of 7 acres.

Tax-Title Lands.

Some of these have been sold by the committee previously mentioned. There are remaining five unsold estates. One parcel of land included under this head, situated on Broadway and Sixth street, is deemed valuable for business purposes, and will doubtless soon be disposed of.

Janitors.

All these officials, employed in city buildings and school-houses, receive their appointment from this committee. Those in charge of school-houses are subject to the direction of the School Committee and teachers.

A code of regulations for their guidance, prepared by the Superintendent of Schools, and approved by this committee, has been placed in the hands of each janitor, and any neglect on the part of such official is reported to this committee.

Such reports are infrequent, and your committee is glad to be able to say, that, as a whole, our corps of janitors is efficient and faithful in the performance of every duty belonging to the position.

THE FOLLOWING IS A SCHEDULE OF PROPERTY

Owned by the city at the close of the year 1883, all of which is under the charge of this committee, except such as is specially noted : —

Almshouse Building.

Foot of Tannery street, Ward Five, with $14\frac{242}{1000}$ acres of land in Cambridge, $17\frac{786}{1000}$ acres of land in Somerville, and $\frac{1}{10}$

acre in Arlington. Total area, $32\frac{1}{8}$ acres. Also stone ledge located on Almshouse land. (In charge of Board of Overseers of the Poor.) N.B. — A part of this land, situated in Somerville, is for sale, and is mentioned elsewhere in this schedule, under *City Lands (Salable)*.

Cemeteries.

Cambridge Cemetery. Foot of Coolidge avenue, containing $40\frac{8129}{10000}$ acres of land. (In charge of Board of Commissioners of Cambridge Cemetery. Included in their report.)

Burial-Ground. Garden street, junction of North avenue, containing 85,858 square feet of land.

City Buildings.

Ward One Building, Brattle square, and land, 16,153 square feet.

Central Square Building, junction Western avenue and Green street, and 13,028 square feet of land.

City Hall, Main street, corner Pleasant street, and 10,181 square feet of land.

City Stables, Norfolk, Hampshire, and Tremont streets, and 72,661 square feet of land. (In charge of Committee on Road and Bridges.)

Police Station, Norfolk street, on City Stable lot.

City Lands (Salable).

Lot on Franklin and Auburn streets, containing $33,835\frac{2}{10}$ square feet.

Lot on Auburn, Pilgrim, and Sydney streets, containing $76,101\frac{7}{10}$ square feet, with house and shed thereon owned by Water Works. [A portion of this land, containing about 15,000 square feet, is leased to the Cambridge Water Works, and another portion, of about 15,000 square feet, is used by the Sewer Department.]

Lot on Brookline street, corner of Pilgrim street, containing $5,549\frac{7}{10}$ square feet.

Lot on Columbia street, adjoining Gannett school-house lot, southerly, containing 18,870 square feet.

Lot on Sydney street, east side, near Auburn street, containing 18,207$\frac{3}{10}$ square feet.

Lot on Cambridge, corner Portland street, containing 111,697 square feet.

Land in rear of Broadway, West Somerville, part of Cambridge Almshouse land, being lots 19, 28, 30, 31, 35, 39, 40, 41, 42, 43, 44, 45, 46, and 47 on the city plan of Almshouse Building Lots, containing in all about 69,070$\frac{4}{10}$ square feet, (also included in the area of Almshouse lands).

City Flats.

Flats, opposite City Wharf, Main street, south side, opposite junction with Harvard street; in all, 162,379 square feet.

Commons and Public Squares.

Cambridge Common. Garden street, North avenue, and Waterhouse streets. Area, 370,785 square feet.

Public Square. Between Waterhouse street and North avenue. Area, 13,180$\frac{7}{10}$ square feet.

Arsenal Square. Garden and Chauncey streets and Concord avenue. Area, 3,189 square feet.

Public Square. Between Waterhouse street and Garden street. Contents, 363 square feet.

Public Square. Between Holmes place and Cambridge street. Contents, 20,956 square feet.

Public Square. North avenue, corner of Kirkland street, on south corner. Contents 23,074 square feet.

Public Square. North avenue, corner of Kirkland street, on north corner. Contents, 33,357 square feet.

Public Square. Junction of Arrow and Main streets, containing 872 square feet.

Public Square. Junction of Hampshire street and Broadway, containing 614 square feet.

Broadway Park. Broadway, corner of Norfolk street. Contents, 107,181 square feet.

Fort Washington. Waverly street. Contents, 42,123 square feet.

Common. Junction of Pleasant and River streets. Contents, 1,569 square feet.

Hastings Square. Brookline, Chestnut, and Henry streets. Area, 29,999 square feet.

Dana Square. Lake, Magazine, Lawrence, and Niagara streets. Area, 33,531 square feet.

Winthrop Square. Brighton, Winthrop, and Mount Auburn streets. Area, 10,236 square feet.

Tudor Park. Between Fresh Pond drive and Watertown Branch Railroad, containing $53{,}032\frac{2}{10}$ square feet.

Engine Houses.

House No. 1, Eliot square, corner Mount Auburn street, included with Ward One Building.

House No. 2, Main street, near Winsor, and land, 3,150 square feet.

House No. 3, Gore and Fourth streets, and land, 4,220 square feet.

House No. 4, North avenue, near corner Russell street, and land, 6,315 square feet.

House No. 5, Hampshire street, corner Inman, and land, 6,000 square feet.

House, Hook and Ladder No. 2, Cambridge street, corner of Portland; land included in city lands.

Gravel Pits.

Gravel Pit, on Concord avenue, containing $397{,}417\frac{7}{10}$ square feet. (In charge of Committee on Roads and Bridges.)

Gravel Pit, in Watertown, containing $109{,}464\frac{9}{10}$ square feet. (In charge of Committee on Roads and Bridges.) The gravel only is owned by the city.

Mill Pond Property.

Old Mill-site and Basins. River street, near Brighton bridge, and upper and lower basins on River street, Putnam and Western avenues, comprising an area of 319,000 square feet, or $7\frac{32}{100}$ acres.

School-houses.

Allston, Boardman street, 15,193 feet of land.

Agassiz, Oxford street, corner Sacramento street, 19,689 feet of land.

Boardman, Winsor street, corner School street, 10,018 feet of land.

Bridge, Pioneer street, Lower Port, 4,646 feet of land.

Corlett, Holworthy street, and 10,000 feet of land.

Cushing, Cushing street, nearly opposite Locust street, 14,788 feet of land.

Dunster, Concord avenue, near Sparks street, and 10,000 feet of land.

Dana, Centre street, and 14,317 feet of land.

Felton, Amory street, corner Summer street, and 15,090 feet of land.

Gore, Gore street, between Third and Fourth streets, and 9,900 feet of land.

Gannett, Columbia street, between Lincoln and Cambridge streets, and $8{,}802\frac{7}{10}$ feet of land.

Harvard (Grammar), Broadway, corner Inman street, and 20,494 feet of land.

Harvard (Primary), Harvard street, near Prospect street, and 10,050 feet of land.

High School, Fayette street, Antrim street, and Broadway, and 37,828 feet of land.

Holmes, Hilliard street, and 11,182 feet of land.

Lassell, Charles street, near Sixth, and 10,000 square feet of land.

Lowell, Lowell street, near Mount Auburn street, and 12,033 square feet of land.

Mason, Front street, corner Jennings street, and 10,000 feet of land.

Otis, Otis street, between Fifth and Sixth streets, and 8,270 feet of land.

Putnam, Otis street, corner Fourth street, and 10,000 feet of land.

Quincy, Mason street, corner James street, and $8{,}469\frac{3}{10}$ feet of land.

Reed, Reed street, Ward Five, and 12,000 feet of land.

Riverside, Putnam avenue, Ward One, and 11,198 feet of land.

Sargent, Broadway, corner Winsor street, and 9,995 feet of land.

Shepard, North avenue, near Russell street, and 14,755 feet of land.

Tarbell, Grigg, Howard, and Magee streets, and 19,500 feet of land.

Thorndike, Thorndike street, corner Sixth street, and 10,027 feet of land.

Willard, Lake, Lawrence, and Niagara streets, and 20,079 feet of land.

Webster, Upton street, and 25,839 feet of land.

Wyman, Spruce street, corner Groveland street, and 14,346$\frac{8}{10}$ feet of land.

Washington, Brattle street, corner Farwell place, and 14,951$\frac{1}{2}$ feet of land.

Surrendered Estates.

These estates were surrendered to the city under the provisions of the statutes relating to low land filling.

This list gives by whom surrendered, and location of property.

CAMBRIDGE–STREET DISTRICT.

Nourse, Susan M. Porter and Jefferson streets. Lot of land, 7,756 feet, Porter street; lot of land, 11,202 feet, Porter and Jefferson streets.

Rafferty, B. Cambridge and Jefferson streets. Old building, and 24,934 feet of land.

COWPERTHWAITE–STREET DISTRICT.

Crane, Ann, Heirs of. Grant street and DeWolf street. Lot of land containing 16,353 feet.

Kneeland, Henry. Grant street. Lot of land, 4,000 feet.

Winthrop, William, Heirs of. Athens place. Lot of land, west side, 6,750; lot of land, east side, 15,460 feet.

WASHINGTON–STREET DISTRICT, SOUTH DOCK AND SOUTH CANAL.

Bent Heirs. Dock and Sixth streets. West lot containing 5,959 feet; rear lot containing 32,060 feet.

Hunt, Fanny E. Harvard street, north side, easterly of the estate of Bridget Manning; lot containing 6,966 feet.

FRANKLIN–STREET DISTRICT.

Biggin, John. Franklin street. Lot of land containing 3,004 feet.

Daily, Cornelius. Hancock street, near Green. 3,467 feet of land.

Drinan, Maurice. Kinnaird street. Lot of land, about 3,927 feet.

Halloran, Mrs. Mary. Kinnaird street. Lot of land, 3,084 feet.

Johnston, Thomas A. Green street. Lot of land, 4,860½ feet.

Kelley & McKinnon. Howard street. Two lots of land, 7,200 feet.

Lonergan, Michael. Howard street. Lot of land, 3,600 feet.

Murdock Lands. Lots as per city plan No. 1: on Franklin street, lots 2 and 3, containing 6,500 square feet; on Kinnaird street, lots 4 to 10 inclusive, containing 14,099 square feet. Total, 20,599 square feet.

Murdock Lands. Lots as per city plan No. 2: on Western avenue, lots 1, 2, and 3, containing 13,643 square feet; on Dodge street, lots 6, 12, and 13, containing 9,205 square feet; on Grigg street, lots 8, 9, 10, 14, and 15, containing 15,113 square feet; on Magee street, lots 19 to 26 inclusive, containing 21,200$\frac{2}{10}$ square feet; on Hayes street, south-west side, lots 29 to 35 inclusive, containing 18,995 square feet; on Hayes street, north-east side, lots 40 to 45 inclusive, containing 15,283 square feet; on Hayes and Howard streets, lots 36 and 39, containing 7,397 square feet. Total, 100,836$\frac{2}{10}$ feet.

Read, J. Stacey. Franklin street. Lot of land containing 16,128 feet; lot of land containing 3,833½ feet. Kinnaird street, lot of land containing 17,646 feet. Howard and Kinnaird streets, lot of land containing 8,174 feet. Total, 45,781½ feet. A portion of these lands is shown on city plan No. 1, it being lots numbered 1, 11 to 21 inclusive.

Thresher, J. M. Jay street, westerly side, lots 28 to 37 inclusive, containing 38,313 square feet; Howard and Kinnaird streets, easterly side, lots 38 to 46 inclusive, 32,454 feet; westerly side Howard and southerly side Kinnaird street,

lots 58 to 63 inclusive, 20,383 feet; part of two corner lots on westerly side of Grigg street, as per new plan, near Western avenue, 19,285 feet. Total, 110,436 feet.

TAX–TITLE ESTATES (SALABLE).

The following-described estates were conveyed to the city by persons who had purchased them at auction sales by the Collector of Taxes, and the city has taken legal possession of the same.

Lot on Broadway, west corner of Sixth street, containing 17,517 feet.

Lot on Second street, east of Conlan's court, containing 26,400 feet.

Lot on Hunting street, west side, adjoining land late of Melley, containing 2,709 feet.

Lot on Spruce street, near railroad, adjoining land of McSweeney; area, undetermined.

Land on Walden street, south-east of land of Bond, south-west of land formerly of Saunders; area, undetermined.

WHARVES AND LANDINGS.

Public Landing, foot of Bath street; area, unknown. *Gerry's Landing*, so called, south of Mount Auburn street; area, unknown. Each has a frontage of 30 feet on the river.

City Wharf, Main street, opposite Harvard street, 13,680 feet.

WATER–WORKS PROPERTY.

Old Engine-House Lot, foot of Lake View avenue, about 33,568 feet of land.

New Engine-House, opposite foot of Lexington avenue, and 90,414 feet of land.

Fresh Pond, lands bordering on; area, unknown.

Little Pond, lands bordering on; area, unknown.

Reservoir, Reservoir street, corner High street, and 86,920 eet of land. All the Water-Works property is in charge of the Cambridge Water Board.

Recapitulation of Areas.

Kind of property.	Square feet.	Acres.
Almshouse lands, about	1,399,365	32.128
Cambridge Cemetery	1,778,511.24	40.829
Burial-Ground, Ward One	85,858	
Occupied by City Buildings	112,023	
Salable City Lands	152,563.9	
City Flats	162,379	3.73
Commons and Public Squares	744,061.9	17.008
Occupied by Engine-houses	19,685	
Gravel-pit on Concord avenue	397,417.7	9.125
Gravel-pit in Watertown	109,464.9	2.51
Mill-Pond Lands, about	315,000	
Occupied by School-houses	423,461.5	
Surrendered estates, lands: —		
Square feet.		
Cambridge-street District	43,352	
Cowperthwaite-street District	42,563	
Washington-street District	44,985	
Franklin-street District	306,795	
Total in all the districts	437,695	
Tax-Title Estates, three estates	46,626	
Occupied by Water Works at Fresh Pond	210,902	
City Wharf Land	13,680	
Total, about	6,408,694.14	147.14

Schedule

Of salable city lands, surrendered estates, and tax-title lands, included elsewhere in this report, with their appraisal, as made by the Committee on Public Property in this and former years: —

Lot on Franklin and Auburn streets, 33,835 $\frac{2}{10}$ feet	$8,458 75
Lot on Auburn, Pilgrim, and Sydney streets, 76,101 $\frac{7}{10}$ feet,	15,220 34
Lot on Sydney street, east side, near Auburn street, 18,207 $\frac{3}{10}$ feet	2,731 09
Lot on Cambridge, corner Portland street, 111,697 feet	39,093 95
Flats opposite City Wharf, Lower Port, 162,379 feet	8,118 90
Mill-Pond Property	10,000 00
Total City lands as appraised	$83,623 03
Surrendered estates	99,820 55
Tax-title Lands, about	10,000 00
	$193,443 58

Salable Almshouse lands, 69,070 $\frac{4}{10}$ feet, unappraised.

Below is given a recent appraisal in detail of all the property mentioned in the foregoing list, except such as is in charge of the Cambridge Water Board, the aggregates being as follows: —

City Buildings, Land, and Furniture	$260,347 50
School-Houses, Land, and Furniture	627,301 82
Salable City Land	83,623 03
Surrendered Estates	99,820 55
Almshouse and Land	45,000 00
Wharf at Lower Port	7,000 00
Gravel-pit in Cambridge	4,000 00
Gravel-pit in Watertown, about	10,000 00
Tax-title Lands, about	10,000 00
Personal property used in connection with Public Squares, including trees on hand, about	500 00
Total	$1,147,592 90

Respectfully submitted,

JOHN CLARY,
GEO. W. GALE,
SAMUEL W. McDANIEL,
JAMES H. WELLS,
GEO. C. BENT,
} *Committee on Public Property.*

REPORT

OF THE

COMMITTEE ON SOLDIERS' AID.

The Committee on Soldiers' Aid submits to the City Council its report for the year ending Nov. 30, 1883: —

The amount paid as regular State aid was . .	$10,700 50
The amount paid to indigent soldiers and sailors was	2,924 00
The amount paid to the agent employed in the examination of settlements, etc., was . .	240 00
Total	$13,864 50

The amount received from the Commonwealth was,	$14,914 00
The amount received from other towns and cities,	162 00
	$15,076 00

There are now upon the State-aid list 192 persons, and upon the list of indigent soldiers and sailors 32.

All of which is respectfully submitted,

JOHN READ,
CHAS. A. AUSTIN,
CHARLES BULLOCK,
GEO. A. DAVIS,
JOSEPH COGAN,

Committee on Soldiers' Aid.

REPORT

OF THE

CITY ENGINEER.

OFFICE OF THE CITY ENGINEER,
CITY HALL, CAMBRIDGEPORT, Dec. 31, 1883.

To the Honorable the City Council: —

GENTLEMEN, — As required by ordinance the City Engineer herewith presents a report of the operations and expenses of the Departments of Engineering and Sewers for the year ending November 30, 1883: —

Streets.

The work in progress on Brookline bridge causeway, reported last year, has been completed; the wall in front of the "Clark Estate" has been set back to the new line, and a substantial new fence has been built on each side of the causeway. The avenue now presents a neat and creditable approach to this section of the city. The building of the Charles-River Railroad track over this causeway has necessitated filling to the established grade, — a matter not at the time intended, nor required for the ordinary travel; thus adding considerably to the cost of the work. Plans of street-railroad locations have been filed as they have been granted, and tracks constructed. Plans and estimates have been made for a bulkhead on the southerly side of Mt. Auburn street, westerly from the "Casino Grounds" about one thousand feet. This is much needed for the safety of public travel, and should receive early attention. A temporary fence has been erected for protection until this work can be done.

Paving Main Street.

Estimates have been prepared, showing the probable cost of paving Main street with block granite from West Boston bridge

to the Boston and Albany Railroad to be about $17,000. This is a very desirable improvement, and might be continued by appropriating each year an amount sufficient to pave, say from 500 to 1,000 feet or more. Streets have been laid out and accepted as shown in the following table : —

Street.					Plan.		Aeeepted.
Name.	From	To	Length in feet.	Width in feet.	Date.	By	
Blake street	North avenue	Orehard street	408.05	40	May 17, 1883...	W. A. Mason	June 7, 1883.
Bowdoin street	Linnæan street	95.3 ft. S. of Martin street	601.83	40	Nov. 12, 1883 ..	Charles Morton	Dec. 6, 1883.
First street	Thorndike street	Vine street	150.00 400.00	50 60	Dee., 1883	Charles Mills	April 24, 1883.
Fourth street	Bridge street	Gore street	456.00	....	June, 1883.....	E. T. Howe	Aug. 2, 1883.
Hubbard avenue	Walden street, westerly		500.00	40	Nov., 1883	R. B. Palfrey	Sept. 24, 1883.
Lancaster street	North avenue	Linnæan street	899.00	30	Dec. 10, 1883 ..	William A. Mason & Son	Dec. 31, 1883.
Larch street	Brattle street	near Lexington avenue	2,661.00	40	June, 1883.....	Charles Morton	July 31, 1883.
Montgomery street	Spruce street, northerly		211.00	40	Sept., 1883	William A. Mason & Son	Nov. 15, 1883.
Norris street	North avenue	Cedar street	663.50	40	May 17, 1883...	E. T. Howe	July 19, 1883.
Oak street	Cambridge street	Somerville line	272.04	30	Nov. 8, 1883....	E. F. Bowker	May 24, 1883.
Spring street	Sixth street	Ninth street	533.54	50	Dec., 1883	Charles D. Elliot	Dec. 31, 1883.

Mill Pond.

The mill-pond filling has been continued with about the same rate of progress as last year; the old mill, which was in an unsafe condition, was sold, and has been torn down, the gates and dam taken out of the flume; the water now ebbs and flows in the old mill-pond and the canal as far as Putnam avenue, where a small gate confines the water in the upper pond, the water in which has been changed as often as directed by the health officer. One small lot has been sold out of this tract.

Bridges.

The draws of the "River street," "Western Avenue," and "Cambridge Great" bridges will probably have to be rebuilt early in the coming season. The hauling-piers need thorough examination and repair; they should be lengthened from 30 to 50 feet, close-sheathed on the water-way, and protected by oak fenders.

The work of dredging the channel of the river, which has been going on the past year under the direction of the United States Government, has necessitated a much greater use of these bridge-draws than is usual, and the passage of loaded scows has been very hard on them; particularly the River-street and Cambridge Great bridges, both of which have been repaired under the direction of the City Engineer. All the other bridges have been examined, and are in good condition; they will probably need only the ordinary repairs.

New Bridge.

Matters relating to a proposed bridge between Front street in Cambridge, and West Chester Park in Boston, have moved slowly. The necessary appropriations for preliminary work have been made, and the committees have met and arranged the details for the engineers to base their work upon. This was accomplished so late in the year that very little has been done as yet. It is expected that examinations will be made and plans prepared the coming winter.

Charles-river Embankment Company.

The work of developing the property of this company has been commenced: 1,000 feet of sea-wall on the Harbor line is under contract, and well in hand; 300,000 cubic yards of dredging and filling is also under contract, and a considerable part of the work done. Negotiations and arrangements have been under discussion, by which, in consideration of some concessions in the matter of taxes, the company is to deed to the city a strip of land 100 feet wide, in the line of the approach to the proposed new bridge, for a roadway to it across its property.

Sewers.

There have been constructed $2\frac{392}{1000}$ miles, making a total of $67\frac{2760}{1000}$ miles of sewers in the city. The work of the present year is given in detail in the following table: —

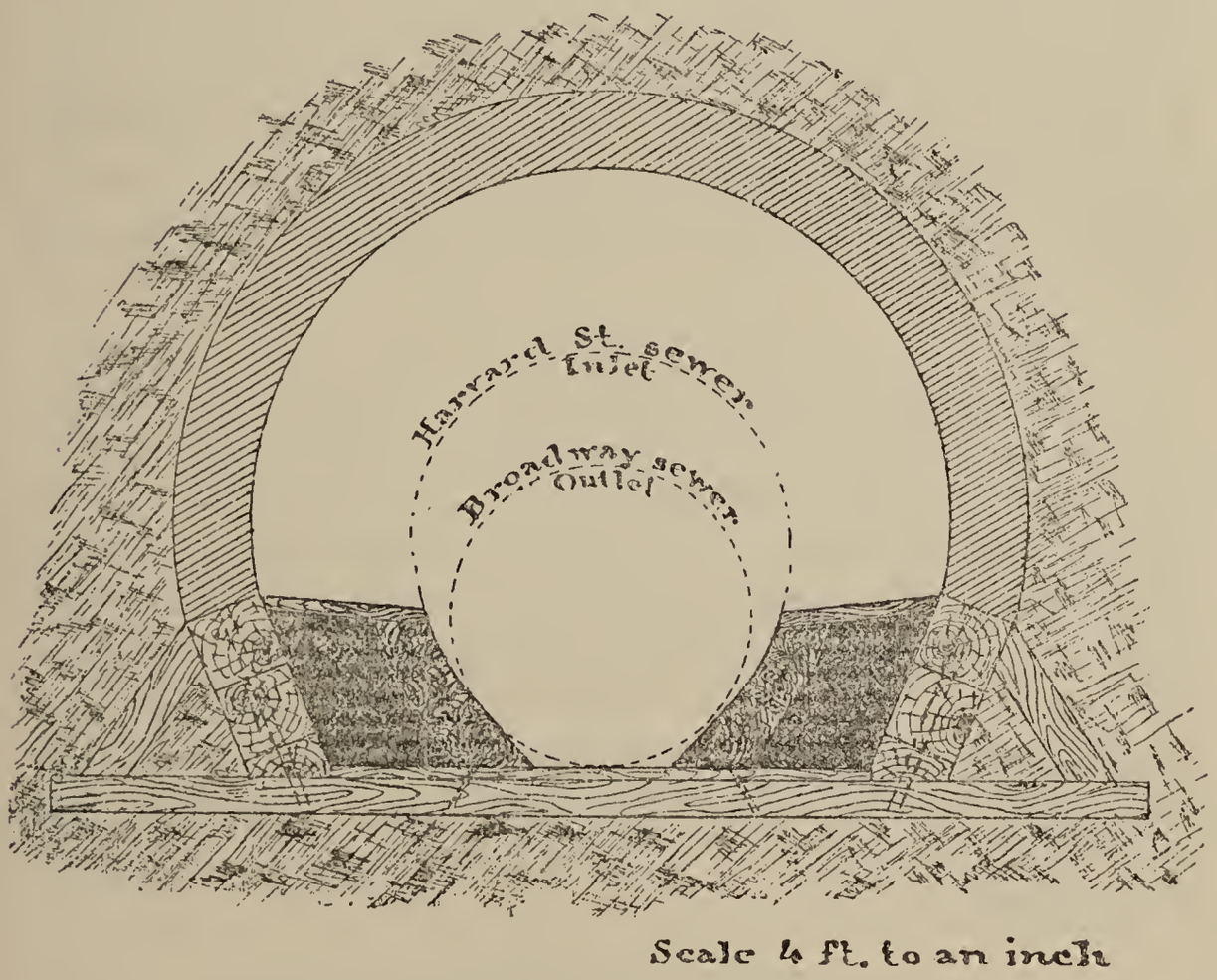
Sewers Constructed between December 9, 1882, and December 1, 1883.

Location.			Construction.						Total Cost.
Street.	From	To	Built by	Material.	Size in Inches.	Man-holes.	In-lets.	Length in Feet.	
Andrew	Somerset street	Fairmont street	City Engineer	Akron pipe	10	2	35	370.	$376 32
Banks	Near Flagg street	Southerly	City Engineer	Akron pipe	12	.....	10	127.66	123 11
Brattle	Channing street	Larch street	City Engineer	Portland stone ware	15	4	101	*1,729.20	3,412 06
Brookline	Erie street	Allston street	City Engineer	Akron pipe	12	2	40	446.00	386 73
Cottage	End of Sewer	Westerly	City Engineer	Portland and Akron pipe	12	.....	6	84.70	88 70
Chestnut	Sydney street	Easterly	City Engineer	Akron pipe	10	.....	7	144.20	110 77
Chestnut	Sydney street	Westerly	City Engineer	Akron pipe	10	.....	4	96.50	83 18
Coggswell avenue	Near North avenue	Near Fitchburg R.R.	Sam'l McCulloch	Portland stone ware	12 and 10	3	52	803.50	1,355 95
Essex	Austin street	Southerly	City Engineer	Portland stone ware	10	1	12	199.90	177 85
Fourth	Gore street	Southerly	City Engineer	Akron pipe	10	1	10	174.30	249 51
Frost st. and Prentiss pl.	Harris street	Southerly & Westerly	City Engineer	Akron pipe	8	.....	3	93.80	51 64
Garden court	Garden street	Northerly	City Engineer	Akron pipe	10	1	18	294.90	350 63
Grigg and Magee	Howard street	Near Putnam avenue	Timothy Murphy	Akron pipe	15, 12 and 10	4	71	†919.50	2,680 33
Hurlbut	Martin street	Near Linnæan street.	City Engineer	Akron pipe	10	1	28	351.40	274 13
Huron	Lake View avenue.	Easterly	City Engineer	Akron pipe	10	.....	6	177.30	138 51
Hadley	North avenue	Northerly	City Engineer	Akron pipe	10	2	15	345.60	290 47
Lambert avenue	North avenue	Near Walnut avenue	Sam'l McCulloch	Portland stone ware	12 and 10	4	71	1,094.20	1,804 12
Larch	Brattle street	Northerly	City Engineer	Portland stone ware	12	1	50	716.60	809 47
Linnæan	North avenue	Lancaster street	City Engineer	Akron pipe	10	2	12	292.40	295 47
Martin	North avenue	Near Bowdoin street	City Engineer	Akron pipe	12 and 10	2	20	294.50	289 12
Magee, see Grigg.									
Mead	Coggswell avenue	Coggswell place	Sam'l McCulloch	Portland stone ware	15	1	9	166.60	383 02
Prentiss pl., see Frost st.									
Pearl	Auburn street	Northerly	City Engineer	Akron pipe	10	1	4	105.20	107 89
Plymouth	Webster avenue	Easterly	City Engineer	Akron pipe	10	1	12	235.30	219 09
Railroad st., and private lands	Dublin street	Coggswell ave.	City Engineer	Brick	32x42 to 16 x 24	6	137	1,972.72	7,477 53
Sixth	Cambridge street	Near Otis street	City Engineer	Akron pipe	10	1	15	202.30	290 02
Sixth	Spring street	Northerly	City Engineer	Portland stone ware	10	1	13	180.60	200 86
Summer	Prospect street	Westerly	City Engineer	Akron pipe	10	1	4	104.30	82 11
Seventh	Cambridge street	Northerly	City Engineer	Portland stone ware	10	1	8	129.30	148 68
William	Pearl street	Magazine street	City Engineer	Portland stone ware	12	2	27	383.20	390 25
Webster avenue	Southerly from end	Near Winsor street	City Engineer	Akron pipe	10	1	11	127.20	147 11
Wells place	Brattle street	Northerly	City Engineer	Akron pipe	10	.....	12	265.70	279 79
						46	823	12,628.58	$23,074 42

* Includes amount lowered between Channing and Fayerweather streets.

† Partly on pile and plank foundation.

The sewer proposed and recommended in my last report for the Coggswell-avenue district has been built, and is now in good working order. Owners of houses on the line of the new sewers have been directed by the health-officer to connect their house drainage, and many have done so. It is particularly desirable that all should do so as soon as possible, that the drains from the old ditch and water-course may be entirely removed. The branch sewers proposed in Raymond



street, Hubbard and Crescent avenues should be constructed early the coming season. In building the Railroad street sewer large quantities of water and quicksand were encountered, requiring constant pumping, and a cradle bottom for the brick sewer. Sizes and details of the sewer will be found in the table.

The Clarkson hoisting and conveying machine purchased last year was used to advantage on this work where the cutting ranged from 10 to 15 feet in depth.

The sewer in Brattle street, between Channing street and

Fayerweather, has been lowered 5 feet, and extended westerly to Larch street, — a new street extending northerly from Brattle street to the Fresh-Pond station on the Fitchburg Railroad, near the pumping-station of the water works. The size of this sewer was 15 inches; where the cutting ranged from 10 to 17 feet the machine was also used.

A much-needed improvement has been made in the Sixth-street sewer, between Harvard street and Broadway, by introducing in the bottom a new wooden invert to concentrate the flow and increase the velocity of the current through that part of the sewer, where, by its great width of flat bottom (7 feet), the sewage was much retarded, and deposits had accumulated to a very considerable depth, causing deposits in the connecting sewers. The cut on preceding page shows how this improvement was made.

Bridge-street Sewer.

Early in June work was commenced in removing the deposits around the mouth of the Bridge-street sewer. This was done by using a powerful stream of water, drawn through two lines of hose, connected to a Siamese-twin pipe with one opening. The deposit was washed out from under the wharves and bridge; it was then dredged with a dredging-machine, and taken away by scows to the place in Boston harbor designated by the Harbor Commissioners, the inspector being furnished by them. 4,516 cubic yards were taken away, the whole cost being $2,992.60. $1,662.56, or $\frac{5}{9}$ of the cost, was paid by the City of Somerville.

Alewife Brook and Belmont District.

Complaints have been made by the town of Arlington, and others, in relation to the nuisance in Alewife brook. The authorities of Cambridge are as desirous as any one of abating it, but have been met by serious opposition in their efforts to do so. There is, also, so much uncertainty in the matter of the final disposition of the sewage as to render the adoption of any plan of magnitude exceedingly difficult as well as of doubtful propriety. The brook has been cleaned in the usual way, by removing weeds and digging out the deposits from the bed. This is, of course, only a temporary relief; but seems to be the best that can be done at present, under the circumstances.

The drainage from the Niles Brothers' slaughtering establishment, which enters the brook near the Fitchburg Railroad, has added very much to the foulness of the brook, and their drainage is plainly traceable as far as the tide-gates in Somerville.

The need of drainage in the annexed district is very much felt, and there is now a petition for a sewer for this purpose, which will require action early the coming year. There are two ways in which this district could be drained,—one, by a new outlet at Gerry's landing, passing up through Mt. Auburn street and under the branch railroad; the other, to extend from the Fresh-Pond marginal sewer, along the branch railroad, or through private lands to the same point; either would be expensive, with but small returns from assessments. There is, no doubt, need of drainage for this district; but, with the uncertain state of this question of final disposal, I do not feel prepared to recommend either plan. So far as I am aware no movement has been made in relation to the matter of a metropolitan scheme.

During the winter and early spring considerable attention was given to the cleaning of the Bridge, Binney street, and other large sewers. This work was thoroughly done, and it is expected that, with the flushing-gates and other facilities for cleaning, now belonging to this department, they can be kept clean with comparatively small expense.

The usual number of drain-layers have been licensed, and a larger number of permits issued to them than in any previous year.

All the house connections have been made in the presence of an inspector, who has carefully located them.

The contract for building catch-basins was again awarded to Samuel McCulloch.

The work of cleaning catch-basins has been done by the Sewer Department.

On account of the extreme drought, and the low stage of the pond, not as much has been done as was desirable in the matter of flushing sewers and filling catch-basins.

The appropriation for sewer construction was	$20,000 00
Additional, to cover deficiency	6,779 87
	$26,779 87

Expended for sewers, as per table; also, catch-basins, tools, and stock		$26,779 87
For sewers, (maintenance)	$10,000 00	
Additional	2,000 00	
	$12,000 00	
Expended for sewers (maintenance), including repairs sewers, repairs catch-basins, new man-holes in old sewers, cleaning sewers, cleaning catch-basins, repairs Sixth-street sewer, cleaning Bridge-street outlet, and other miscellaneous work		11,495 74
Unexpended balance		$504 26

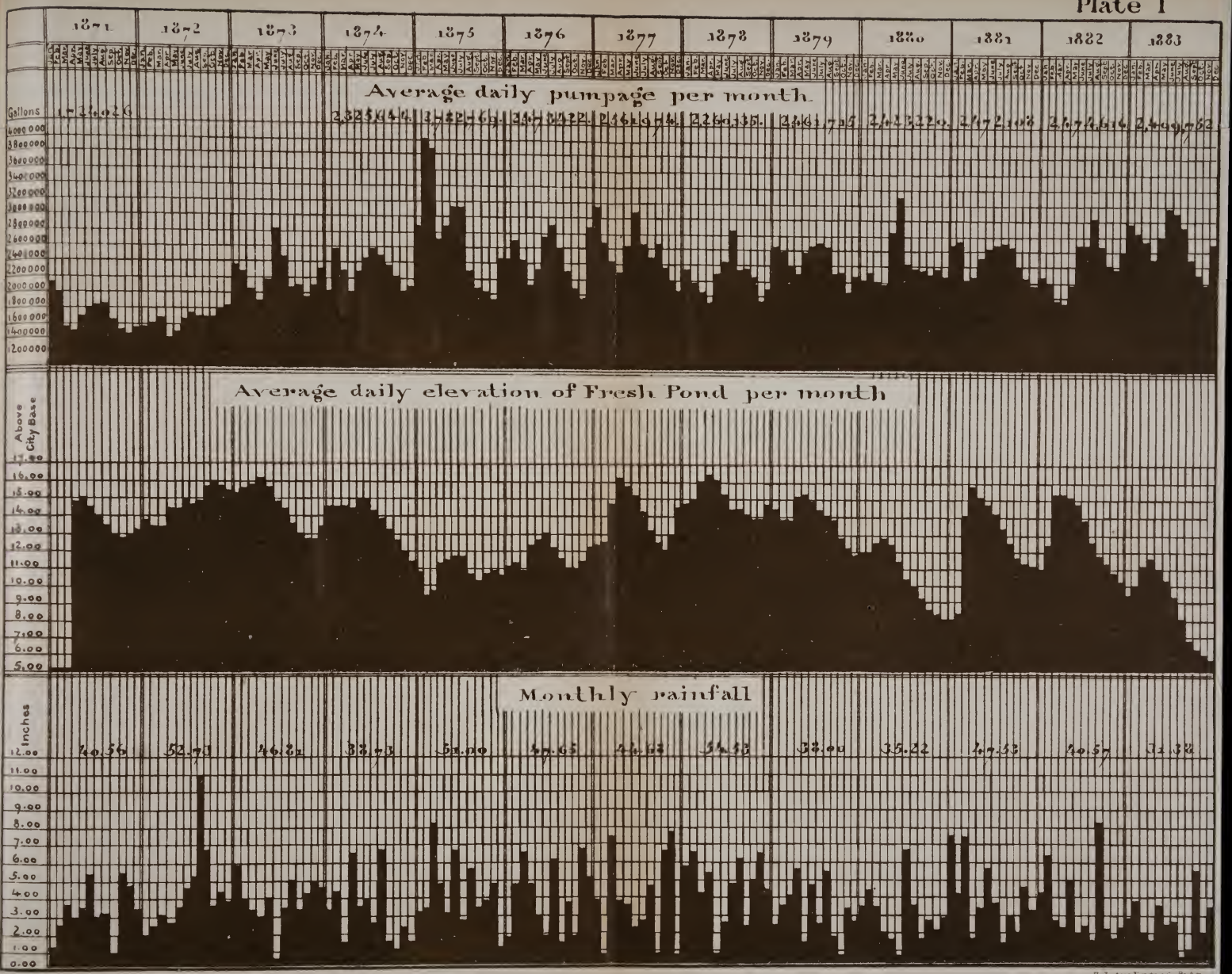
Water Works.

The application to the Legislature for an additional supply of water from the Shawsheen river was again unsuccessful, the opposition from that source being too strong to be overcome thus far.

The Water Board has decided to ask for, and has made application for leave to take, water from Stony brook, in Waltham. The need of an additional supply has never been more strongly felt than at the present time. The pond has reached the lowest point ever known, and is still going down, with very little prospect of taking in any great quantity of water until February, March, and April, when we may expect spring freshets, melting snow, and rain from the water-shed of Wellington brook.

The low stage of the pond has required the placing of new and duplicate machinery on the shore of the pond, for raising the water to the level of the pump-wells at the main pumping-station. In order to get a greater depth of water from which to pump, a wharf about 100 feet long, and covering about 2,090 square feet of area, was built out into the pond, where there was a depth of about 16 feet. The wharf is covered by a temporary wooden building, in which there has been placed a new stationary Atlas engine and boiler of 40-horse power. The Kendall and Roberts 35-horse portable engine and boiler have also been placed in the same building, and have been connected with the Atlas boiler, by which arrangement either engine can be run from either boiler, and both are connected by belts with a counter-shaft, from which the new 12-inch Follansbee propeller

Plate I



Heliotype Printing Co. Boston

Plate II

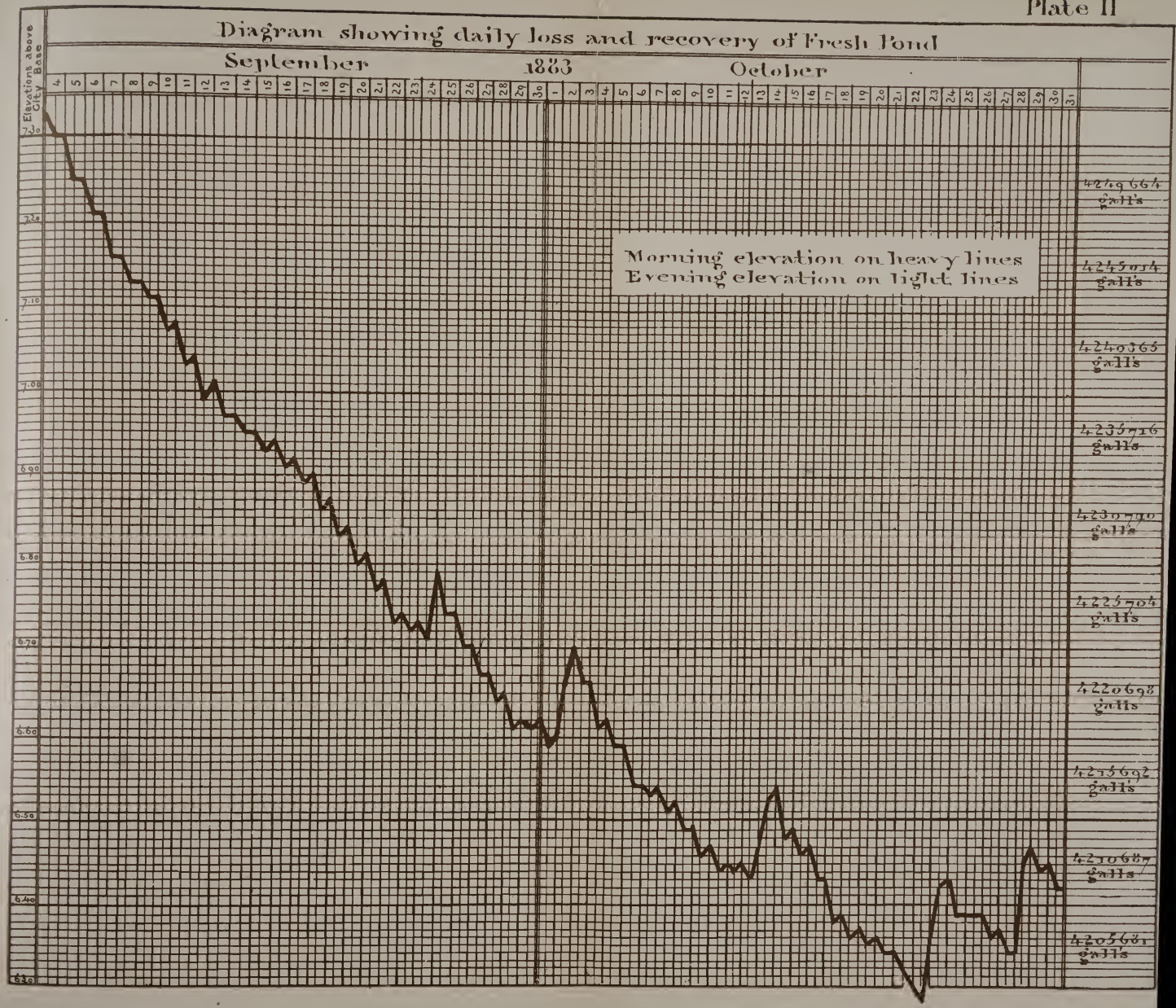


Diagram showing daily loss and recovery of Fresh Pond
September
1883
October
Elevations above City Base
7.30
7.20
7.10
7.00
6.90
6.80
6.70
6.60
6.50
6.40
6.30
Morning elevation on heavy lines
Evening elevation on light lines
427,9664 gall's
424,5034 gall's
424,0365 gall's
423,5716 gall's
423,0770 gall's
422,5704 gall's
422,0698 gall's
421,5692 gall's
421,0687 gall's
420,5681 gall's

Plate III

Diagram showing daily loss and recovery of Fresh Pond
November
1883
December
Elevation above City Base
6.50
6.30
6.20
6.10
6.00
5.90
5.80
5.70
5.60
5.50
4210628 gall's
4205651 gall's
4200675 gall's
4195669 gall's
4190663 gall's
4185657 gall's
4180651 gall's
4175645 gall's
4170639 gall's
4165632 gall's

pumps are run. They are each capable of raising 5,000,000 gallons of water in 24 hours, and can be run separately or together, as desired. The pumps are placed in a new well-room, constructed under the extreme outer end of the building, fitted with copper-wire screens. The water is lifted into a flume 3 × 3 feet, and from thence is conducted by a smaller flume into the gate-house at the end of the brick conduit, by which it is conveyed to the pump-wells at the main pumping-station. The centrifugal pump was started August 27, the elevation of pond being 7.66, and run until November 28, when the new pumps were brought into use, and are now running.

A large amount of work has been done in improving the shores and bottom of the pond. The vegetable matter has been removed from a large part of Boat-house nook. It was placed on the shore above and near high-water mark. It was backed-up in front with gravel, and covered with gravel and clay on top. The pond-slope was made 3 to 1, and covered with a thin covering of small stone.

Dams have been built across "Eames'," "Bright's," and "Gay's nooks," thus cutting off some very objectionable places. The pond-slopes of the dams at Eames' and Bright's were paved, the one at Gay's being covered with riprap. Other portions of the shore have been paved. Some of the more prominent gravelly points have been excavated, and the material used in the grading and construction of the dams. A large amount of the material used in the construction of the dams was refuse from the city gravel-pit near by. The only place now remaining which is objectionable is "Black's nook," the parties claiming it having asked for an injunction restraining the city from doing work thereon. A temporary injunction was granted, while the hearing on the permanent one has not been had. It is to be hoped that the matter can be adjusted and the work done before the pond is again filled.

The accompanying diagram, No. I., shows the pumping, the pond level, and the rainfall. During the extreme drought much interest and curiosity have been manifested as to the yield of the pond; many inquiries have been made as to the night recovery of the pond, after pumping has ceased, before commencement the next morning. Diagrams No. II. and III. have

been prepared, showing graphically the morning and night readings of the gauges during the months of September, October, November, and December, so far as observations have been made, and offer an opportunity for study to those inclined.

The following table shows the areas of the pond, with the number of gallons for $\frac{1}{10}$ of a foot in depth at each foot of elevation, between high-water mark and elevation 6.00 feet: —

Fresh Pond.

Elevation.	Area in Acres.	Gallons per Tenth.	Remarks.
16.85	168.08	5,477,050	Areas reduced from those formerly given by cutting off objectionable nooks by the dams recently built.
16.00	165.24	5,384,320	
15.00	164.05	5,345,520	
14.00	162.68	5,301,050	
13.00	160.46	5,228,560	
12.00	157.79	5,141,700	
11.00	154.60	5,037,650	
10.00	151.35	4,931,780	
9.00	148.20	4,829,010	
8.00	131.41	4,282,210	
7.00	129.99	4,235,720	
6.00	128.45	4,185,660	

Cemetery.

The new plan referred to in my last report, as in progress, has been completed, and a copy is to be kept at the City Hall. Negotiations have been in progress looking to the purchase of land for an extension of the cemetery grounds, but nothing definite has been settled upon. It is a matter of much importance, and should not be delayed much longer. The usual work of laying out lots, locating and sketching the new graves on the

superintendent's book, giving lines and grades of lots, avenues, and other miscellaneous work, has been attended to as required, as well as several plans and sketches of proposed additions.

Fire-Escapes.

In my last report your attention was called to the decision of the City Solicitor in the matter of fire-escapes and egress from buildings: in substance, that section 8, of chapter 3, city ordinances, is inoperative. This of course leaves the matter in the hands of the State authorities. I would suggest that our building ordinance be revised, and that more stringent regulations be adopted. It may be best to establish fire limits, and restrict or regulate the kind of buildings for certain localities.

Office.

Five persons have been employed in the engineering department. The various demands from the water works, sewer, street, cemetery, and other departments and committees, have been met as required.

The appropriation made for this department was . . .	$6,700 00
Additional, to cover deficiency	72 23
	$6,772 23
There have been expended, including salary of City Engineer, Assistants, stone bounds, hardware, paper, and other supplies	$6,772 23

Respectfully submitted,

WM. S. BARBOUR,

City Engineer.

REPORT

OF THE

JOINT STANDING COMMITTEE ON ROADS AND BRIDGES.

The Superintendent of Streets having resigned his office early in the spring of 1883, and the vacancy not having been filled during the year, the Committee on Roads and Bridges submits the following report for the financial year ending November 30, 1883, in place of that usually submitted by the Superintendent.

Streets.

The appropriation for streets was	$74,500 00
Additional appropriation	9,001 84
Estimated revenue	500 00
Total	$84,001 84

The whole appropriation was expended, as will be seen by the report of the Auditor of Accounts.

The following streets have been accepted: —

Blake street, from North avenue to Orchard street.
Bowdoin street, from Linnæan, 95.3 feet south of Martin street.
First street, from Thorndike to Vine street.
Fourth street, from Bridge to Gore street.
Hubbard avenue, from Walden, westerly 500 feet.
Lancaster street, from North avenue to Linnæan street.
Larch street, from Brattle street to land of Fitchburg Railroad.
Montgomery street, from Spruce, northerly 211 feet.
Norris street, from North avenue to Cedar street.
Oak street, from Cambridge street to Somerville line.
Spring street, from Sixth to Ninth street.

Paving.

The appropriation for paving was	$7,000 00
Additional appropriation	158 96
	$7,158 96

For sums expended see the Auditor's report.

Your committee would earnestly recommend the paving of Main street from the West Boston bridge to the railroad crossing.

Bridges.

Appropriation for bridges	$2,000 00
Additional appropriation	345 30
	$2,345 30

For sums expended see the Auditor's report.

The annual inspection of the bridges has been made in connection with the City Engineer. They were all carefully examined as required. Two or three of them will need extensive repairs, for a more particular description of which, reference may be had to the report of the Engineer. The other bridges, maintained in whole or part by the city, are in good condition.

Street Watering.

Appropriation for watering	$10,000 00
Estimated revenue	10,000 00
Additional appropriation	4,989 20
	$24,989 20

For sums expended see the Auditor's report.

Your committee has been obliged during the last season to hire from outside parties a large number of extra carts, and this has been the practice of former committees for several years past. The committee would recommend the purchase of not less than ten additional watering-carts; and, in order to render them available during the next season, the contract for them should be made at once, as those that have heretofore been hired are not fit for use.

Appropriation for shade trees and public grounds,	$2,500 00
Additional appropriation	1,535 42
	$4,035 42

For sums expended see the Auditor's report.

Respectfully submitted,

S. S. SLEEPER,

For the Committee.

REPORT

OF THE

COMMISSIONER ON THE WEST BOSTON, CANAL, AND PRISON-POINT BRIDGES FOR 1883.

The Commissioner for West Boston, Canal, and Prison-Point bridges submits for himself and associate the Thirteenth Annual Report of matters pertaining to the West Boston and Canal bridges, and the Seventh Annual Report on Prison-Point bridge.

West Boston Bridge.

A section of this bridge on the Boston side, mentioned in the last annual report as having been rotten for several years and requiring rebuilding, has been removed, new piles driven for its support, and the superstructure thoroughly rebuilt. The work was done without the stoppage of travel; and, although a temporary inconvenience to teams and horse-cars, it was so speedily accomplished that it gave rise to but slight complaint.

The bulkheads for the entire length of the bridge are quite rotten, and will need extensive repairs during the coming season. A large portion of them will have to be rebuilt, and the remainder, by repairing, may be made safe for another year.

The floor-timbers and planking on the draw-piers also require renewal.

The condition of the roadway and sidewalk pavements on the filled portions of the Cambridge side is such that they should be relaid. The curb-stones and roadway have settled so that the sidewalks are becoming so steep as to be dangerous for foot travel, especially when coated with ice.

The expense of this work will be quite large; but it should not be delayed for another season, and ought to be commenced early in the spring.

The draw has been provided with new steel bearing-plates for the centre pin, and a new chain, and, together with the engine and appurtenant machinery, is in excellent condition.

The bridge itself may be considered in fair condition with the exceptions named.

Canal, or Craigie Bridge.

Early in the spring the sidewalk flooring on both sides, and for the entire length of the new portion of this bridge, was found to be very rotten, and in a dangerous condition. The work of replacing the unsound planking with new chestnut planks was at once commenced, and was continued without delay, except that due to the non-receipt of planking, until completion.

The substructure of the old portion of this bridge is apparently in its usual condition, and shows no sign of decay or further deterioration from that of last year.

It requires, however, careful watching, as it is liable at any time to show signs of weakness, which would need prompt attention.

No extensive repairs will be required on the bridge, which is in good order.

The draw and its machinery are in good condition. The engine has been provided with a new boiler, and the machinery thoroughly overhauled and repaired.

A great improvement has been made in the manner of lighting this bridge and the West Boston by substituting the electric light for gas. The cost is slightly in excess of that of gas; but it is believed that the additional safety and convenience it affords for the travelling public more than compensate for the increased cost.

Prison-Point Bridge.

This bridge is in good order, and will require only ordinary repairs during the coming year. It has been repainted and replanked.

The usual statements of the number of draw openings, are appended.

I wish to note, in connection with my report, the death of the former Commissioner, Hon. Ezra Parmenter. He had served in that capacity for the past twelve years with fidelity to the city's interests, and had also filled other important positions connected with the city.

WILLIAM J. MARVIN,
Commissioner for Cambridge.

CAMBRIDGE, December 20, 1883.

NUMBER OF TIMES THE DRAW IN CANAL BRIDGE HAS BEEN OPENED DURING THE YEAR.

December, 1882	164
January, 1883	36
February, 1883	12
March, 1883	105
April, 1883	272
May, 1883	383
June, 1883	338
July, 1883	330
August, 1883	362
September, 1883	343
October, 1883	278
November, 1883	276
Total for the year	2,899

A. W. SMITH,
Superintendent.

NUMBER OF TIMES THE DRAW IN WEST BOSTON BRIDGE HAS BEEN OPENED DURING THE YEAR.

December, 1882	67
January, 1883	2
February, 1883	3
March, 1883	32
April, 1883	175
May, 1883	244
June, 1883	235
July, 1883	240
August, 1883	256
September, 1883	250
October, 1883	207
November, 1883	225
Total for the year	1,936

CHARLES W. BLANEY,
Superintendent.

NUMBER OF TIMES THE DRAW IN PRISON-POINT BRIDGE HAS BEEN OPENED DURING THE YEAR.

December, 1882	25
January, 1883	12
February, 1883	13
March, 1883	15
April, 1883	21
May, 1883	33
June, 1883	53
July, 1883	53
August, 1883	35
September, 1883	41
October, 1883	26
November, 1883	51
Total for the year	378

NATHANIEL W. STORY,
Superintendent.

The expenses of the City of Cambridge for the care and maintenance of West Boston, Canal, and Prison-Point Bridges, for the year were as follows: —

For Superintendent and Engineer's salaries	$2,171 52
Commissioner's salary, Ezra Parmenter	83 34
Commissioner's salary, William J. Marvin	333 34
Lumber	1,538 16
Repairs, carpenter-work	1,176 04
iron-work	347 51
painting, etc.	161 21
Gas	574 23
Electric lights	469 00
Wharf piles and girders, use of the pile-driver	369 75
Watering bridges	325 00
Paving, granite, bricks, and sand	268 79
Fuel	235 49
Cleaning roadway, etc.	159 38
Hardware and tools	139 10
Teaming	121 62
Sundry small expenses	23 94
Oil and small supplies	22 85
Water-rates	14 50
Amount carried forward	$8,534 77

Amount brought forward	$8,534 77
Small repairs, etc.	8 23
Legal services for A. W. Smith, Superintendent . .	10 00
	$8,553 00

Amount appropriated	$10,600 00
Amount of expenses	8,553 00
Balance unexpended December 1, 1883	$2,047 00
Receipts, rent, and old wood	214 55
	$2,261 55

REPORT

OF THE

CAMBRIDGE WATER BOARD FOR 1883.

To the Honorable City Council of the City of Cambridge: —

In compliance with the city ordinance, the Cambridge Water Board herewith submits to you its nineteenth annual report, being for the year ending Nov. 30, 1883: —

Total Cost of the Works.

Cost of the Water Works, Nov. 30, 1882, as per last year's report	$1,745,614 47
Expended on construction account during the year ending Nov. 30, 1883	5,730 50
Making the total expenditure to be	$1,751,344 97

Water Bond Account.

Whole amount of bonds issued	$1,714,900 00
Amount paid from the Water Loan Sinking-Fund	291,400 00
Leaving unpaid water loan	$1,423,500 00
Deduct from this the value of the Water Loan Sinking-Fund, per Trustees' account	496,896 95
Leaving balance of water loan yet to be provided for by the Sinking-Fund	$926,603 05

Statement showing in brief the transactions on account of the Water Works for the year ending Nov. 30, 1883: —

Received.

From water rates	$180,485 23	
Less water rates refunded	1,123 34	
		$179,361 89
Amount carried forward		$179,361 89

Amount brought forward	$179,361 89
Shutting off and letting on water, and fines	529 50
Rent of house	144 00
From supply account	6,053 86
Balance, showing deficiency	2,373 28
	$188,462 53

Expended.

For Construction account	$5,730 50
Maintenance account	45,763 29
Supply account	4,028 74
Interest on water loan	88,585 00
Paid into Sinking-Fund	44,355 00
	$188,462 53

Comparative Receipts.

Water rates for the year ending Nov. 30, 1883	$179,361 89
Water rates for the year ending Nov. 30, 1882	177,430 80
Showing gain during 1883	$1,931 09

The large increase in maintenance account of this year over last year is explained by the amount expended in building dams, and cleaning out of Fresh Pond; riprapping the banks, etc., etc., having been charged to this account, in addition to the ordinary current expenses.

Water Supplied.

The total amount of water pumped during the year was 980,670,464 gallons; the amount pumped in 1882, 903,234,909 gallons,— showing increase during the year, 77,435,555 gallons.

This statement is significant in showing us the rapid increase of the consumption of water in our city, and for which we must provide.

If we now take the total amount of water pumped as above, 980,670,464 gallons, on an estimated population of 60,000, we shall have a daily average for each inhabitant of 44.77 gallons, including all the water used for mechanical purposes, watering streets, and fires. This showing continues us in the list among the most economical in the use of water, as can be seen by comparison with other cities in the list published last year in our report to you.

The analyses made from time to time during the year have not proved quite as good as in some former years, the most noticeable difference being in the increased hardness of the water in the pond as it is drawn down. While this quality does not in any way seem to injure the taste of the water, it is a serious matter when the water is used for washing and other domestic, as well as mechanical, purposes.

Sources of Water Supply.

The water in the pond Dec. 1, 1882, was one foot eight and one-half inches above the conduit. On Dec. 1, 1883, it stood three feet one inch *below* the top of the conduit, showing a loss during the year of 4.91 feet.

On the 27th of August the water had gone so low that our pumps in the engine-house could not safely work any longer, so that at that time we began to pump from the pond into the conduit, which we have continued till now, thus pumping all our supply twice over.

Table showing the rainfall and height of water in the pond : —

Months.	Rainfall.			Below High-Water Mark.		
	1881.	1882.	1883.	1881.	1882.	1883.
	Inches.	Inches.	Inches.	Feet.	Feet.	Feet.
December, 1882	1.98	3.30	1.87	8.52	5.48	6.45
January, 1883	5.03	4.73	2.94	8.55	5.48	7.10
February, "	4.14	4.48	2.85	8.20	4.27	6.73
March, "	6.07	2.49	1.76	2.65	1.32	5.52
April, "	1.83	2.27	2.48	.98	1.24	5.09
May, "	3.62	4.93	4.10	1.26	1.64	5.63
June, "	6.27	2.73	2.28	1.72	2.08	6.32
July, "	3.41	2.08	2.38	2.36	3.04	7.47
August, "	1.13	1.41	.34	3.24	4.32	8.74
September, "	2.74	7.80	1.18	4.07	5.09	9.87
October, "	2.85	2.19	5.61	4.87	5.32	10.38
November, "	4.68	1.21	1.96	5.23	5.90	10.75
Total for 12 months	42.85	39.62	29.75	av. 4.30	av. 3.77	av. 7.50

A careful examination of this table in connection with our experience of former years shows most conclusively that, so far as we have gone, or have any facts to guide us, our present water supply is slowly, but surely, being exhausted. We have never before had such an opportunity to demonstrate the capacity of Fresh Pond for furnishing a supply of water from unseen sources, which, of course, means the ground flow of water that is tributary to the pond.

We invite your attention to the following calculations, drawn from our experience the past three years; and for this purpose we have taken the month of November in 1881, 1882, and 1883, this being a month when our consumption reaches its lowest point.

Date.	Average height of water in the pond.	Amount of rainfall during the month.	Fall of the pond during the month.	Total fall of the pond, plus rainfall during the month.	Amount of water received from visible sources.	Amount of water received from unseen sources.	Total water supplied for thirty days.
November.	Feet.	Inches.	Inches.	Inches.	Gallons.	Gallons.	Gallons.
1881.....	11.62	4.08	3.0	7.08	30,440,000	35,974,200	66,418,200
1882.....	10.95	1.26	6.88	8.14	35,002,000	36,060,890	71,062,890
1883.....	6.10	1.96	5.5	7.46	25,110,000	39,897,870	65,007,870

If we now further analyze this statement we shall find this result: —

Date.	Daily average of water from visible sources during month.	Daily average of water from unseen sources during month.	Daily average of water pumped from all sources during month.	Total of water furnished during the thirty days, as per former account.
November.	Gallons.	Gallons.	Gallons.	Gallons.
1881.....	1,014,800	1,199,140	2,213,940	66,418,200
1882.....	1,166,734	1,202,029	2,368,763	71,062,890
1883.....	837,000	1,329,929	2,166,929	65,007,870

It will be seen by this that in November, 1881, with the pond at 11.62, or five feet three inches below high-water mark, the supply of water from unseen sources, by almost accurate measurement, was 1,199,140 gallons daily. In November, 1882, with the pond a little lower, at 10.95, or five feet eleven

inches below high-water mark, the supply was 1,202,029 gallons per day; while in 1883, with the pond down almost five feet lower than in 1882, being at 6.10, the supply from unseen sources was only 1,329,929 gallons per day. The height of the water in the pond now is only about six inches above low-water mark in Boston harbor. You will notice that during the past year, while the pond has fallen 4.85 feet, so that we should think it would draw the water from a long distance from the ground flow under the surface, yet the increase per day from this source into the pond has only been 127,900 gallons, or about one-half hour's pumping.

We have made these calculations to meet remarks often made, that "Fresh Pond was inexhaustible," and that "it could never be pumped down below a certain point," and others of a similar nature. Of course we do not *know* but that it is inexhaustible, and can never, in the nature of things, *know for a certainty* until we had continued pumping until the last gallon was gone. But this we *do know*, that so far as we have gone there is no truth in these views, and no foundation for them outside of speculation; and therefore it becomes our duty, as well as only resort, to recommend the getting of an adequate water supply as soon as it can possibly be done.

Additional Water Supply.

We have now for three successive years applied to the Legislature for the right to take the waters of Shawsheen river; but the opposition has been so strong from the mill-owners that we did not succeed. In every case the committees of the Legislature have acknowledged our necessities, but, for reasons that seem to them good, have put us off by "reference to the next General Court." Last winter the argument against us was, that an equally good supply was to be had from Stony Brook at much less cost than Shawsheen. In connection with the City Engineer we made an examination of this source of supply; and, after becoming satisfied that the water was good, and an ample supply for our city for many years to come, we recommended that an application be made the coming session for the right to take that stream; which has been done. This stream and its tributaries cover a water-shed of some twenty

square miles. It is in a sparsely settled country, and there are but a few factories on it, and these are small. We can learn of no opposition that is likely to arise to our taking this stream except from the town of Waltham and the mill-owners on the river below. It seems to us that our case is more pressing than theirs, and ought to prevail.

What Needs to be Done.

1. First of all, and most important of all, to get an additional water supply; and, if the Legislature grant us the right to take Stony Brook, we recommend that we proceed with all practicable haste to introduce it into Fresh Pond.

2. As soon as we have the necessary power to do so, we recommend that a careful survey be made of Fresh Pond, and so much land taken around its borders as will enable the city to control the same, and preserve the purity of the water, and prevent any further contamination.

3. We have determined on the extension of the high service to Dana Hill next spring, which can be done at a comparatively small cost, and thus furnish those living on that high land with a constant and abundant supply of water.

4. We recommend that an additional pipe of suitable size be laid up into the Belmont district, to furnish there a more abundant supply for domestic and fire purposes.

For the means to do these things, and for current expenses, we shall, in proper time, apply to your Honorable Body to make for us the necessary appropriations.

General Remarks.

It is important, in order that the true financial condition of the Water Works may appear from year to year, that the rates should be fixed, and, so far as is practicable, remain at a uniform price, where the conditions of the service rendered remain unchanged. We notice that the reduction in our revenue the past year, caused by the reduction of meter rates, is $11,285.93, and on hydrants, $3,065, — a total of $14,350.93. We do believe in reducing the water-rates to consumers as fast as we can do so safely; but, in any further action in this direction, it should be borne in mind that, if we succeed in getting the supply of

water from Stony Brook, the necessary cost of it will increase our fixed charges at least $35,000 per annum. In regard to the large reduction on metered water made last year, whether this has been compensated for in any way the Council can judge as well as this Board. In regard to hydrants, when the original price of $30 was fixed, great care was taken to have it as low as the average of other cities. In 1875 it was reduced to $11, and remained five years; in 1880 it was again made $30; in 1881 and 1882 it was $15; while in 1883 it was made $10. We have a list of 28 towns and cities, nearly all in New England, where the rates for hydrants range from $20 to $60. The average is $35. We think, in fairness to this department of the city, the rates for our hydrants should be as high as the lowest of this list, to wit, $20 per annum, and allowed to remain at that price. Should that be done it would go well towards the reduction of water rates on $22 rate houses, which we are all agreed should have the benefit of the next reduction that is made in rates.

We wish to express our hearty thanks to the City Council for its cheerful coöperation with this Board in making the improvements about the pond this year. We fully believe that no appropriations ever made by the City Council were more needed, or have been better expended for the benefit of all our people, than that for cleaning out the pond, and shutting out by dams the low places which furnished so much vegetable matter to pollute the water. It has been the only redeeming feature of this extremely low stage of water, that it afforded us an opportunity such as we never had before to clean out and put in good condition our great natural reservoir.

There is a matter to which we called your attention a few years ago, to which we would again refer. At present our water rates are payable July 1, and if not paid within a short time thereafter the registrar is required, by an imperative order of the City Council, to shut off the water. July and August are months when a great many of our people are away on vacations, and it is not a convenient time for them to pay. By forgetfulness, and not from want of disposition or ability to pay, they find, upon returning home, or by information sent to their places of summer resort, that their water is cut off for non-payment of

water rates. Not knowing, in some cases, that the registrar has no discretion in the matter, they at once make it a personal affair, and blame him for the inconvenience of shutting the water off, and the expense of letting it on again. We would refer you to the remarks of the registrar on this subject in his report to us. Again, it brings into our office and into the Treasurer's office a large amount of labor in midsummer, when, if at any time in the year, it is desirable to have the work as light as it is practicable to be. We would suggest that the water rates be made payable May 1, instead of July 1. After one year of interruption it would go on as now from year to year.

We cannot close this report without referring to our late President, who so long and faithfully served the city as a member of this Board. We miss his cheerful, kindly greeting and his valuable counsel. Perhaps we cannot do better than to record here the resolutions passed by the Board soon after his death, as follows: —

In Water Board, Sept. 28, 1883.

Whereas, The Honorable George P. Carter, so long a member of this Board, and of late its President, has been suddenly removed by death, —

Resolved, That we, his late associates, desire to express our sense of the ability and fidelity with which he discharged the duties of his office; of his untiring and unselfish industry, for so many years, in the service of the city; of his inflexible integrity and honesty of purpose, which won for him the respect and confidence of his fellow-citizens, and of his kindly disposition and courtesy, which endeared him to those who knew him best.

Resolved, That the foregoing be entered upon the records of the Board, and that a copy thereof be sent to the family of the deceased, in token of our sympathy with them in their affliction.

Let us hope that, when our places become vacant, as much can be truly said of us.

All the officers employed by this Board have faithfully discharged their duties, during the past year, with the exception of our registrar, who has been confined to his house a large part of the time by sickness. While absent he has provided a substitute in the office, so far as possible to fill his place.

We herewith submit the Report of the Registrar and Superintendent, made to this Board, as a part of our report to you, for many details of interest in connection with the work.

As usual we have received assistance cheerfully rendered from the City Engineer and City Solicitor, to whom we would give due credit.

Respectfully submitted,

C. W. KINGSLEY,
JAMES M. W. HALL,
H. L. EUSTIS,
K. S. CHAFFEE,
L. M. HANNUM,
JAMES A. FOX,
GEO. H. HOWARD.

CAMBRIDGE, Dec. 16, 1883.

REPORT

OF THE

WATER REGISTRAR.

WATER REGISTRAR'S OFFICE,
CAMBRIDGE, December 13, 1883.

To the Cambridge Water Board: —

The undersigned herewith presents his eighth annual report, showing, as required by city ordinance, the receipts, expenditures, and abatements for the year ending November 30, 1883, together with a statement of the number of water-takers, fixtures, etc.

Amount of bills remaining unpaid Nov. 30, 1882: —

Water rates	$109 15	
Meter rates	38 18	
Supplies and repairs	1,002 26	
		$1,149 59

Amount of bills placed in hands of City Treasurer for collection, from Nov. 30, 1882, to Dec. 1, 1883: —

Water rates	$151,489 16	
Meter rates	32,065 79	
Supplies and repairs	5,563 86	
Off and on water, seals, fines, and rent	673 50	
		189,792 31
Total		$190,941 90

Deduct.	Abated.	Unpaid.	
Water rates	$3,010 98	$123 12	
Meter rates	45 63	37 32	
Supplies and repairs	13 80	498 46	
	$3,070 41	$658 90	3,729 31
			$187,212 59
Amount reported by City Treasurer as received by him			$187,212 59

Receipts.

Water rates	$148,464 21	
Meter rates	32,021 02	
		$180,485 23
Off and on water, seals, and fines	$529 50	
Rent of house at pipe-yard	144 00	
		673 50
Total rates, fines, etc.		$181,158 73
Supplies and repairs		6,053 86
Total		$187,212 59

Expenditures.

Construction account		$5,730 50
Supply account		4,028 74
Maintenance account, viz.: —		
Care and repairs	$13,807 91	
Pumping service	9,570 64	
Improvements at Fresh Pond	10,680 25	
New pumping service (pumps, engine, and building)	6,105 35	
New pumping service (salaries, coal, etc.)	764 01	
Office expenses	4,835 13	
		45,763 29
Total		$55,522 53

Abatements.

Water-rate bills to the amount of	$3,056 61
Supply and repair bills to the amount of	13 80
Total	$3,070 41

Charges for water rates on supplies afterwards shut off, or fixtures sealed, are necessarily abated before the books can be balanced. New charges are then made when the water is again let on.

Refunds.

Water rates have been refunded to the amount of	$1,123 34
Which amount, deducted from receipts	180,485 23
Leaves net receipts for water	$179,361 89
Add off and on, seals, fines, and rent	673 50
Makes net receipts of rates, fines, etc.	$180,035 39

Off and On.

Water has been shut off for non-payment of rates, or per order, on account of vacancy, and seals have been applied to fixtures by request of owners or occupants, as follows: —

Supplies shut off in 1883	401
Supplies let on, shut off in 1883	293
Supplies let on, shut off in previous years	52
New supplies let on	271
Seal-locks applied to fixtures in 1883	426
Seal-locks removed, put on in 1883	96
Seal-locks removed, put on in previous years	147

Statement of the yearly revenue received from water rates since the purchase of the works by the city: —

From	April	28, 1865,	to	Dec.	1, 1865	$32,367 19
"	Dec.	1, 1865,	"		1, 1866	40,073 27
"	"	1, 1866,	"		1, 1867	52,733 62
"	"	1, 1867,	"		1, 1868	63,747 42
"	"	1, 1868,	"		1, 1869	76,149 30
"	"	1, 1869,	"		1, 1870	92,606 95
"	"	1, 1870,	"		1, 1871	111,782 65
"	"	1, 1871,	"		1, 1872	127,201 30
"	"	1, 1872,	"		1, 1873	146,117 32
"	"	1, 1873,	"		1, 1874	153,634 27
"	"	1, 1874,	"		1, 1875	138,880 37
"	"	1, 1875,	"		1, 1876	179,166 76
"	"	1, 1876,	"		1, 1877	154,843 59
"	"	1, 1877,	"		1, 1878	157,443 91
"	"	1, 1878,	"		1, 1879	164,681 90
"	"	1, 1879,	"		1, 1880	173,325 49
"	"	1, 1880,	"		1, 1881	170,062 73
"	"	1, 1881,	"		1, 1882	177,430 80
"	"	1, 1882,	"		1, 1883	179,361 89

Comparative Statement.

	1882.		1883.	
Construction Account.				
Received				
Expended	.....	$16,959 12	.....	$5,730 50
Supply Account.			.....	
Received	.....	$3,832 51	.....	$6,053 86
Expended	.....	3,684 63	.....	4,028 74
Excess of Receipts	.....	$147 88	.....	$2,025 12
Maintenance Account.				
RECEIVED.				
Rates, fines, etc.	.....	$178,191 07	.....	$180,035 39
EXPENDED.				
Care and repairs	$28,870 06	.....	$15,763 29	
Interest on Water Debt	88,585 00	.....	88,585 00	
Paid to Sinking-Fund Commissioners	44,355 00	161,810 06	44,355 00	178,703 29
Excess of Receipts	.....	$16,381 01	.....	$1,332 10
Supply Account, Excess of Receipts		$147 88	.....	$2,025 12
Maintenance Account, Excess of Receipts		16,381 01	.....	1,332 10
		$16,528 89		$3,357 22
Expended on Construction Account		$16,959 12		$5,730 50
Deduct Surplus as above		16,528 89		3,357 22
Excess of Total Expenditures over Total Receipts		$430 23		$2,373 28

Besides the manufactories, etc., supplied by meter, water is now supplied to 11,765 families, 797 stables, with 2,063 horses and 276 cows, 257 shops, 372 stores and offices, by the following fixtures, viz. : —

14,204 faucets.	21 hopper-closets.
3,856 wash-basins.	66 urinals.
2,382 wash-tubs.	60 yard-hydrants.

2,077 bath-tubs.	5 yard-fountains.
5,192 pan-closets.	3 tumbler-washers.
775 slop-closets.	1,012 hand hose.

Also, —

599 fire-hydrants (besides 4 on private premises).
14 fire reservoirs.
15 drinking-fountains in public squares.

The above is exclusive of the various school-houses, and other city buildings, for which special rates are charged, except where meters are located.

All premises supplied with Fresh-Pond water have been visited during the year, and a careful inspection made, to determine leaks and wastage.

If the members of the Board and of the City Council could hear but a small part of the harsh comments made by citizens upon the present time set for enforcing settlement of bills for water rates, they could not fail of being convinced that the date should be changed, so that water-takers would pay in May, rather than when they are preparing for, or are already enjoying, their annual summer vacation.

Repeated notices from the City Treasurer and the Registrar, stating the requirements of the City Ordinance, are ignored; and each enforcement is looked upon, even by business men, as a personal attack by the Registrar.

Extremely personal letters received, if gathered together, would make highly interesting reading, viewed by the light of the City Ordinance, which is obligatory upon the Registrar. The change suggested (and once recommended to the City Council by your Board) would evidently remove this substantial cause of annoyance to our citizens, and after the first year would run smoothly.

The Registrar's statement of the large amount accumulated from balances due, but unpaid, to the sinking-fund, and used for city purposes, although declared by the City Solicitor illegally so used, has been examined by the City Auditor, and brought up to Dec. 1, 1882.

It is now in the hands of the Committee on Finance of the City Council, to suggest a plan for settlement.

During the year the city has, by death, lost the services of Hon. GEORGE P. CARTER, the President of the Board, and Wm. T. Raymond, Inspector.

In the death of President Carter each employee in the water office felt that he had lost a personal friend; his daily visits during his years of service, his pleasant, though close scrutiny of affairs, and strict impartiality, having made him such.

His expressions of satisfaction with the management and business transactions of the office are pleasant to recall, based, as they were, upon careful and constant supervision.

For a large part of the year the Registrar has been confined to his house by severe sickness, and the details of the office business have fallen upon the Assistant Registrar, Mr. Walter H. Harding. His carefulness and energy, aided by the various checks and balances adopted during the past few years, have kept the work well advanced, and at the close of the financial year its correctness has been proved by the figures embodied in this report.

With the approval of President Carter, Mr. E. H. B. Winnett was placed in the office as temporary assistant, and has very satisfactorily performed the duties assigned him.

With sincere thanks for the kindness and consideration shown me by the Board during my long sickness, this report is

Respectfully submitted,

J. WARREN COTTON,

Registrar.

REPORT

OF THE

COMMITTEE ON ACCOUNTS OF THE CAMBRIDGE WATER BOARD.

We have examined the abstract of accounts, as presented us by the Water Registrar, covering the records of the past year. We have compared these with the statements submitted to us by the City Treasurer and Auditor, and we find them to agree. Annexed, in brief, is the financial statement presented to us by the Water Registrar, and verified by us.

Amount of bills in hands of City Treasurer, Nov. 30, 1882: —			
For Water rates		$109 15	
Meter "		38 18	
Supplies and repairs		1,002 26	
			$1,149 59
Amount of bills delivered to City Treasurer for collection during the year ending Nov. 30, 1883: —			
For Water rates		$151,489 16	
Meter "		32,065 79	
Supplies and repairs		5,563 86	
Off and on, seals, and fines		529 50	
Rent of house at pipe-yard		144 00	
			189,792 31
			$190,941 90
Of these amounts the Treasurer has collected	$187,212 59		
Less refunded	1,123 34		
		$186,089 25	
Refunded as above		1,123 34	
Abated		3,070 41	
Balance uncollected, Nov. 30, 1883		658 90	
			$190,941 90

JAMES M. W. HALL,
GEO. H. HOWARD,
JAMES A. FOX,
} *Committee on Accounts.*

DECEMBER, 1, 1883.

ANNUAL STATEMENT OF THE WATER REGISTRAR TO THE COMMITTEE ON ACCOUNTS, DEC. 1, 1883.

Water rates unpaid, Nov. 30, 1882		$147 33	
Bills placed in hands of City Treasurer for collection, from Dec. 1, 1882, to Nov. 30, 1883: —			
Water rates from Fractional Ledger		14,390 56	
" " " Annual "		136,811 00	
" " " Meter "		32,065 79	
" " " Building account		287 60	
Off and on, rent, and fines		558 00	
Seals		115 50	
Total bills on rates, fines, etc.		$184,375 78	
Supply and repair bills unpaid Nov. 30, 1882	$1,002 26		
Supply and repair bills placed in the hands of City Treasurer for collection, Nov. 30, 1882, to Nov. 30, 1883	5,563 86		
		6,566 12	
Total bills			$190,941 90
There have been collected, Fractional Ledger		$13,516 57	
Annual "		134,660 04	
Meter "		32,021 02	
Building account		287 60	
Off and on, rents and fines		558 00	
Seals		115 50	
Total collections on rates, fines, etc.		$181,158 73	
Collection on supply and repair accounts		6,053 86	
Total collections		$187,212 59	
There have been abated, Water rates,	$3,056 61		
Supplies and repairs	13 80		
		$3,070 41	
Amount carried forward		$190,283 00	

Amount brought forward		$190,283 00	
There remain uncollected, Water rates,	$160 44		
Supplies and repairs .	498 46		
		658 90	
			$190,941 90
Total collections		$187,212 59	
Less refunds		1,123 34	
Total net receipts			$186,089 25

Attest: W. H. HARDING,
Asst. Registrar.

REPORT

OF THE

SUPERINTENDENT OF THE WATER WORKS.

CAMBRIDGE, December 10, 1883.

To the President and Members of the Cambridge Water Board: —

GENTLEMEN, — The annual report of your Superintendent, upon the condition of the Works and the operations of the past year, is herein presented.

The total amount of water pumped is 980,670,464 gallons. Coal consumed per million gallons pumped, 1,649 pounds.

Water sold by meter, and that used for watering streets, 257,095,625 gallons, leaving as the amount for domestic use 723,574,839 gallons.

Number of gallons daily for each inhabitant on whole amount pumped, 44.7 gallons.

Number of gallons daily for each inhabitant on amount for domestic use, 33 gallons.

Spy and Little Ponds, Wellington Brook and Conduit.

The pipe connection between Spy and Little Ponds has not been used during the year. The water has been analyzed with the usual result, — "Not fit for domestic use." The gate-house and gate are in good condition.

Little Pond, during the past season, has contained a large amount of the weed known as clathrocystus, and no water has been drawn directly from this source. The filter-basin appears to be in good condition. The gates were opened, and water taken from this source, from January 24 to April 13. The height of the water in Little Pond was 15.30, Fresh Pond 9.55,

at the time the gates were opened. The condition of Wellington Brook remains the same as at the date of my last report. Water was drawn from this source from January 24 to April 13, at which time the water was deemed unfit for use, and the gates were closed. The conduit has been inspected from Wellington Brook to Fresh Pond. Two places were found near Fresh Pond where it had settled and drawn apart two inches; these have been repaired, and the conduit is now in good condition its entire length.

Fresh Pond.

Owing to the low state of the water in Fresh Pond a large amount of work has been done on its borders, and many much-needed improvements have been made. The mud has been removed, and banks built, on the south and west shores, and the slopes of the banks have been covered with stone. Dams have been built across Eames', Bright's, and Gay's Nooks, which cut off three very objectionable sources of pollution. Black's Nook now remains, and when that is cut off Fresh Pond will be comparatively free from impurities caused by decayed vegetable matter, with which the nooks have been filled. The rip-rapping on the east shore, near the engine-house, has been thoroughly repaired.

The water in Fresh Pond reached its highest point April 14, viz., 11.93; and its lowest, November 26, 5.91. The centrifugal pump, on the border of the pond, was started August 27, the water in the pond being drawn down to grade 7.66, which is one foot and eight inches below the inside of the top of the conduit, or 9.19 feet below high-water mark. As there was no duplicate to this pump, in case of accident, and no prospect of the pond filling up for many months to come, a wharf has been built farther out in the pond, and a house built thereon. Two Follansbee propeller-pumps, together with a 40 horse-power engine and boiler, built by the Atlas Works of Indianapolis, Indiana, have been purchased, and put in position. By this arrangement the water can be drawn to a depth of feet lower than its present height, which is three feet and two inches below top of conduit. The new pump was started, for regular duty, November 28.

Pumping Works.

The engine-house lot and Tudor Park have received the necessary care, the grass cut and walks graded. I would recommend that a suitable fence be built around both of the above lots. No repairs have been needed on the engine-house or coal-sheds during the year. The Engineer's report, appended, shows the condition of the engines and boilers, and repairs on the same.

Reservoir.

The retaining-wall of the reservoir from the gate-house, on the east side, to and on Highland and Reservoir streets, to within one hundred feet of the north-west corner, has been thoroughly pointed. There does not appear to have been much, if any, movement of the high wall on Reservoir street the past year. I think it should receive the necessary repairs in the spring. The walks and banks have received the usual care. I would again call your attention to the necessity of a separate house for the chronograph, in order to keep continued and perfect records of the night consumption.

High Service.

No extension of the high service has been made during the past year. I think the time has come when it should be extended to Dana Hill, as in business hours it is impossible to maintain a pressure above what the reservoir will give, which is not sufficient to fill the tanks on this hill. This extension can be made by using the old 12-inch main from the reservoir to the flag-staff in Harvard square, then laying an 8-inch main to Quincy street, there connecting with the 6-inch main now laid; also laying 800 feet of 4-inch in Chatham street, and putting in the necessary check-valves.

No repairs whatever have been made on the high service since it was put in operation, in June, 1882.

Main Pipe.

Main pipe has been laid in the following streets: 96 feet of 4-inch in Banks street, 189 feet of $1\frac{1}{4}$-inch in Potter street, 509

feet of 4-inch in Chestnut street, 97 feet of 6-inch in Fifth street, 457 feet of 6-inch in Larch street, 658 feet of 12-inch in Portland street, 156 feet of 4-inch in Spring street, 885 feet of 8-inch in Cushing street, 86 feet of 6-inch in Magazine street, 309 feet of 4-inch in Brewster court, 347 feet of 4-inch in Hadley street, 136 feet of 1½-inch in Foster-street court, 88 feet of 4-inch in Lancaster street, 73 feet of 4-inch in Frost street, 139 feet of 2-inch in Van Brunt's driveway off Brattle street, 69 feet of 1-inch in Austin street, 54 feet of 1-inch in Holworthy court, 261 feet of 2-inch in Lawn street, 106 feet of 1-inch¼ in Norton place, 56 feet of 1½-inch in Otter street; 130 feet of 6-inch pipe have been lowered in Foxcroft street, on account of change of grade in street. All of the gates have been inspected and their locations marked.

New Supplies.

Two hundred and eighty new supplies have been laid during the year, making, at this date, a total of 8,004. Nineteen old supplies have been renewed, and seventy-three have been furnished with sidewalk shut-offs.

Leakage.

One hundred and two leaks have been stopped: one on 20-inch cement pipe, two on 10-inch iron pipe, four on 8-inch, six on 6-inch, eleven on 4-inch, six on 3-inch, two on 1½-inch, forty-five on supplies in the street, and twenty-five on supplies on premises. All of the house-fixtures have been inspected once during the year, and the low and marsh territories twice. All of the main pipe on filled and marsh land has been shut off in sections, and tested in the night for leaks.

Our November record of this year, of water pumped, shows a very favorable condition of the Works in regard to leaks. The pumping record of November of this year compared with that of last year shows a decrease of 204,000 gallons daily for the month.

Brookline-street Bridge.

No repairs have been made on the bridge during the year. It appears to be in good condition. The siphon was pumped out in November.

Hydrants.

Five new post hydrants have been set during the year, all in new locations, excepting one at Garfield and Oxford streets.

Two flush hydrants have been removed, viz.: Garfield and Oxford streets, and at Soden street and Western avenue.

The present number is 265 post, and 334 flush.

Pipe-Yard.

The building at the pipe-yard is in good condition; the stable will need painting the coming year.

Accompanying this report is that of the Engineer at the pumping station, and tables showing the monthly amount of water pumped, the Fresh-Pond record of water heights; the locations of fountains, stand-pipes, and meters; the details of main and supply extensions, and the amount of stock on hand.

Respectfully submitted,

HIRAM NEVONS,

Superintendent.

REPORT

OF THE

ENGINEER OF THE PUMPING STATION.

PUMPING STATION, CAMBRIDGE WATER WORKS,
Dec. 1, 1883.

Hiram Nevons, Esq., Superintendent: —

SIR, — I would report the engines and boilers in good condition. During the past year No. 1 engine has had valves and valve-seats refaced, new valve-stems fitted, copper joints made on steam-chests and covers, Tripp's metallic packing fitted to low-pressure piston-rods in internal heads, lagging around cylinders and steam-chests repaired, rubbed down and oiled; the sulphur has been removed from under air-pumps, and replaced with Portland cement. The auxiliary engine and centrifugal pump, at the pond, were started August 27, and ran until November 28, when they were stopped, and the new engine and Follansbee propeller pumps, put in this season, were started. When the portable engine is in position, in the new building, we shall have two sets of machinery, either of which will be capable of pumping five million gallons daily.

Following will be found a statement of the expenses at the pumping station, with the engine record, pond levels, and rainfall.

E. C. BROOKS,
Engineer.

Expenses.

400 tons Cumberland coal, @ $6.30	$2,520 00
$12\frac{895}{2240}$ tons Cumberland coal, @ 6.44	79 86
$309\frac{925}{2240}$ tons Cumberland coal, @ 5.29	1,639 16
Oil, waste, packing, etc.	218 53
Repairs on engines and boilers	619 43
Repairs on buildings and care of grounds	71 39
Salaries	3,510 00
Total	$8,658 37

Engine Record, Pond Levels, and Rainfall.

Date.	Low-Service Engines.						High-Service Engines.						Total water pumped.	Daily average water pumped.	Total coal consumed.	Daily average coal consumed.	Average height of pond.	Rainfall.
	Total pumping time.		Daily average pumping time.		Total water pumped.	Daily average water pumped.	Total pumping time.		Daily average pumping time.		Total water pumped.	Daily average water pump'd.						
	Hrs.	Min.	Hrs.	Min.	Gallons.	Gallons.	Hrs.	Min.	Hrs.	Min.	Gallons.	Gallons.	Gallons.	Gallons.	Lbs.	Lbs.	Feet.	Inches.
December, 1882....	361	35	11	40	78,304,800	2,525,961	361	35	11	40	1,967,117	63,455	80,271,917	2,589,417	147,200	4,748	10.40	1.87
January, 1883....	395	15	12	45	88,759,800	2,863,219	395	15	12	45	2,161,862	69,737	90,921,662	2,932,956	153,400	4,948	9.75	2.94
February, "	338	05	12	04	76,661,700	2,804,175	338	05	12	04	1,855,200	66,257	78,516,900	2,804,175	129,700	4,632	10.12	2.85
March, "	382	05	12	20	81,996,300	2,645,042	382	05	12	20	2,070,874	66,802	84,067,174	2,711,844	144,800	4,671	11.33	1.76
April, "	334	35	11	09	72,052,200	2,401,740	334	35	11	09	1,747,738	58,258	73,799,938	2,459,998	125,700	4,190	11.76	2.48
May, "	371	50	12	....	84,933,900	2,739,803	371	50	12	....	2,066,707	66,668	87,000,607	2,806,471	138,400	4,465	11.22	4.10
June, "	387	05	12	54	91,250,400	3,041,680	387	05	12	54	2,646,912	88,230	93,897,312	3,129,910	143,400	4,780	10.53	2.28
July, "	409	45	13	13	91,825,800	2,962,123	409	45	13	13	3,018,413	97,368	94,844,213	3,059,491	146,600	4,729	9.38	2.38
August, "	392	45	12	40	86,325,300	2,784,687	392	45	12	40	3,094,368	99,818	89,419,668	2,884,501	146,200	4,716	8.11	0.34
September, "	332	05	11	04	70,676,400	2,355,880	332	05	11	04	2,287,814	76,260	72,964,214	2,432,140	118,100	3,937	6.98	1.18
October, "	320	55	10	21	67,816,500	2,187,629	320	55	10	21	2,142,490	69,113	69,958,990	2,256,742	114,900	3,706	6.47	5.61
November, " ...	302	50	10	04	62,888,400	2,096,280	302	50	10	04	2,119,469	70,649	65,007,869	2,166,929	109,300	3,643	6.10	1.96
Total.....	4,328	50	....	....	953,491,500	.....	4,328	50	....	....	27,178,964	.....	980,670,464	.....	1,617,700	.....	.....	29.75
Daily average..	11	52	....	....	2,612,305	.....	11	52	....	....	74,463		2,686,768	.....	4,432	.....	9.35	

ANNUAL REPORT

OF THE

CHIEF ENGINEER OF THE CAMBRIDGE FIRE DEPARTMENT.

Chief Engineer's Office, City Hall,
Cambridge, Dec. 26, 1883.

To His Honor the Mayor and the City Council: —

Gentlemen, — In accordance with the requirements of the ordinance governing the Fire Department, I respectfully submit my annual report for the year commencing Dec. 1, 1882, and ending Nov. 30, 1883.

Membership.

The membership of the department consists of ninety-seven men, as follows: a chief and three assistant engineers, fifty-nine members of steamer companies, twenty-eight members of hook and ladder companies, two members of chemical engine, a relief engineer, and three fire-alarm telegraph operators. Of this number twenty-four are constantly employed, and seventy-three are call men.

Apparatus.

The apparatus connected with this department, which consists of six steam fire-engines, six hose-carriages, one chemical engine, two hook and ladder carriages, four fuel wagons, and one pung, — also one wagon and a pung for fire-alarm purposes, is generally in good, serviceable condition. All the repairs thought necessary have been made during the year.

An order was approved Dec. 23, 1882, authorizing the Committee on Fire Department to sell the two old engines, which

were worn out in the service, and purchase a new steamer, to be placed in charge of Engine Co. No. 1.

In accordance with said order a contract was made, on behalf of the city, with the Manchester Locomotive Works, of Manchester, N.H., for the construction of a first-class steam fire-engine.

The engine was delivered in this city on the 15th day of March, 1883, and after a satisfactory test of its working capacity, in presence of the committee, it was accepted and put in service. The old engine No. 1 will be kept for relief purposes.

It was found necessary during the year to send Engine No. 5 to the shop for repairs, and, after a careful examination of its condition, it was deemed advisable to have it furnished with a new boiler, which was ordered, with such other alterations and repairs as were required to put the engine in complete running order. The engine, after being repaired, was returned on the 7th of September, and again placed in service.

Hook and Ladder Carriage No. 2 was also repaired, and the ladders and truck painted.

An order, adopted by your Honorable Boards, authorizing the Committee on Fire Department to purchase a four-wheeled hose-carriage, has been complied with, and the carriage will be completed on or before January 1. This carriage is intended to take the place of the two-wheeled one, now in service with Steamer No. 5.

Hose.

The total supply of servicable leading-hose now in use by the department is 10,050 feet; of this amount 2,000 feet were purchased this year. The leather-hose, of which there are 2,600 feet, is not reliable for regular fire service, but may be used at times on the hydrants.

There have been condemned during the year 800 feet of cotton hose, which has been in constant service for the last six years; 600 feet of leather-hose have also been deemed worthless for fire use. There are in service, on the chemical engine, 300 feet of $1\frac{1}{2}$-inch cotton, and 300 feet of $\frac{3}{4}$-inch rubber hose.

Horses.

Nearly all the horses connected with the department are in good condition. Some of them now in use have been in the service a long time, and have become too old and stiff to perform the quick work that is required of them; and I would recommend that such changes as may be found necessary be made the coming year.

The number of horses required to do the work of the department is twenty-three; owned by the city twenty-two, the chief engineer being obliged to furnish his own horse and wagon.

Fire-Alarm Telegraph.

The fire-alarm remains in about the same condition as stated in last year's report, only needed repairs having been made. A signal box, numbered 116, was purchased by Sylvester Tower, and located in his factory on Broadway, and, by permission of the Committee on Fire Department, it was connected with the fire-alarm wires.

Box 16 (duplicate), in the yard of the American Rubber Co., was changed to number 216.

In my last report I called your attention to the need of procuring a new repeater, and a change in the lines of this very important branch of the service, deemed necessary for the better protection of property against fire.

I would therefore recommend that a repeater be provided the coming year; and that such changes in the lines as the demands require be made from time to time.

I would also recommend that a striker be purchased, and placed in the tower of the First Baptist Church, Central square, and that it be connected with the telegraph wires, so that fire-alarms may be promptly given on the bell; also that the several fire-stations be connected by telephone.

Houses.

The flooring of the rooms occupied by Engine No. 2 and Chemical No. 1 is considerably worn, and, in my opinion, should be renewed; also the stable floors of Steamer Houses

Nos. 3 and 4. Otherwise, with one exception, the stations are in fair condition, except as stated in last year's report, that some of them need painting.

I would more particularly call your attention to the condition of Hook and Ladder House No. 2. This house was built about ten years ago, of light materials, and at small expense, being intended only for temporary use. Since that time the expenditures for alterations and repairs have been double its original cost. The building stands on or very near the ground, the dampness from which causes a continual rotting of the timbers, and it will be but a short time before it will need further repairs.

I would therefore recommend that a more substantial building be erected the coming year near the present site.

Appointments, Resignations, and Transfers.

Engine Co. No. 3. James S. Casey, driver of engine, resigned June 4, and Peter F. McSorley was appointed to fill the vacancy same date.

Engine Co. No. 5. John D. Thompson, engineer of steamer, resigned Oct. 25, and Charles E. Connor, relief engineer, was transferred to fill the vacancy Oct. 26. George W. Butler, hoseman, resigned Nov. 30.

Hook and Ladder Co. No. 1. Elisha W. Morey, ladderman, resigned Oct. 31. William H. Lydston, ladderman, was appointed relief engineer Nov. 5. James H. Furfey and Thomas H. McCoy were appointed to fill the vacancies Nov. 5.

Hook and Ladder Co. No. 2. Walter R. Marsh, ladderman, resigned June 30, and Thomas Mimnaugh was appointed to fill the vacancy July 2.

Andrew Burk was appointed ladderman Oct. 8, to fill the vacancy caused by the death of Charles E. White, who died Sept. 29.

Increase of Salaries.

Upon petition of the permanent and call men connected with the department, asking for an increase of compensation, the City Council adopted an ordinance, to take effect February 1, increasing the salaries as follows: —

Assistant engineers, from $250 to $325 per annum; engineers of steamers, and assistant superintendent of fire-alarm, from $80 to $90 per month; drivers of engines, hose and hook and ladder carriages, from $65 to $75 per month; foremen of engine and hook and ladder companies, from $168 to $194 per annum; assistant foremen, from $156 to $183 per annum; firemen of engines, hose and ladder-men, from $144 to $172 per annum.

Uniforms.

An ordinance requiring the permanent men of the Fire Department to furnish themselves with a prescribed uniform was adopted by the City Council, April 23, said ordinance to take effect on the 1st day of May, 1883. As it was impossible for all of the men to procure the uniforms on the day named, the Committee on Fire Department extended the time to June 1, on which day the men appeared in uniform.

Fires and Alarms.

The total number of fires and alarms that have occurred during the year ending Nov. 30, was one hundred and seven (107); telegraph alarms, ninety-two (92); still alarms, fifteen (15); five (5) alarms were given for fires out of the city, at two (2) of which a portion of the department rendered assistance. The Boston Fire Department rendered assistance at fires in this city on Jan. 24 and July 1.

The amount of loss and insurance on fires, as near as could be ascertained, was, loss, $105,102; insurance, $216,500. The amount of insurance paid was $84,578.70; making the amount of loss over insurance $20,523.30.

Appropriation, Receipts, and Expenditures.

The amount appropriated for this department at the beginning of the year was, estimated revenue $300; appropriation, $61,350; appropriation and estimated revenue, $61,650. The expenditures were $59,641.15, leaving a balance unexpended of $2,008.85. The receipts were $108.65 in excess of the estimated revenue.

Accidents.

Benjamin D. Foss, of Engine Company No. 2, while riding to a fire, January 2, on the rear step of Hose 2, received severe injury to his right arm, caused by the carriage running against a horse-car.

John Fitzgerald, of Engine Company No. 5, was severely injured about the body by falling from a ladder while on duty at a fire, January 24.

On the afternoon of January 31, while employed in cleaning up the ruins at Fitzpatrick's mill, previously damaged by fire, Edward Dixon, John Stratton, and Amos B. Wells were more or less injured by the falling of a portion of a brick wall. John Evans, also engaged with them, was severely bruised, and hurt internally, by being buried beneath the débris, which caused an alarm from Box 26.

John A. Bartlett, of Hook and Ladder Company No. 1, in attempting to get upon the pan of Engine No. 2, while answering a still alarm of fire, on April 26, fell and fractured his wrist.

On the evening of May 17 the department was needlessly called to house No. 68 Harvard street, where Miss Mary Sullivan, in attempting to light a fire with kerosene oil, accidentally set her clothing afire; and she was so badly burned about the body as to cause her death the following day.

Elbridge L. Wheeler, of Hook and Ladder Company No. 2, received severe injury to his leg, while on duty at a fire, July 1.

The ignition of a kettle of fat at Leberts' Bakery, Bridge street, caused an alarm from Box 9, July 18, where Louis Breneberg, an employé was painfully burned on his arm and hand while trying to extinguish the fire.

William T. King, of Engine Company No. 5, sprained his ankle while answering an alarm of fire, August 5.

Mrs. Nellie Tuttle, residing at 134 Green street, was severely burned on the hand, September 6, by the ignition of a can of naphtha. An alarm from Box 45 summoned the department; but its services were not needed.

An alarm from Box 46, on the night of September 10, called the department to the residence of Dr. Gilman Colby, No. 4 Centre street, where quite a lively fire was burning in a bedroom, caused by Miss Jessie Shaw, who, in attempting to light a lamp, accidentally set fire to the mosquito netting above the bed; while trying to extinguish the blaze her clothing caught fire, burning her to such an extent as to cause her death. Mr. Colby had his hands painfully burned while extinguishing the flames.

Conclusion.

In conclusion I desire to extend my sincere thanks to His Honor the Mayor, the City Council, and the Committee on Fire Department, for the cordial support and endorsement of all matters tending to the welfare and efficiency of the Department.

To Chief Engineer Green, of Boston, and the firemen of that city, I extend my acknowledgments for prompt and valuable services rendered at fires in the city, during the year.

To Chief Engineer Hopkins, of Somerville, I also feel indebted for assistance rendered.

The members of the Board of Engineers, and the officers and members of the several companies, are also entitled to my thanks for their prompt performance of duty.

Respectfully submitted,

THOMAS J. CASEY,

Chief Engineer.

REPORT

OF

THE CHIEF OF POLICE.

To the Honorable the Mayor and the City Council: —

GENTLEMEN, — In compliance with the city ordinance, I have the honor to present my sixth annual report of the work of the Police Department, for the year ending Nov. 30, 1883.

Whole number of arrests		1,552
Males	1,390	
Females	162	
Adults	1,180	
Minors	372	
Value of property reported stolen		$6,991 36
" " " recovered		$840 73

Total Cost of the Department for the Year.

Appropriation and estimated revenue	$65,600 00
Additional appropriation	2,501 37
Total	$68,101 37

RECEIPTS.

Officers' fees, etc.	$4,320 82	
Expenditures		$68,101 37
Receipts		4,320 82
Balance, showing actual cost		$63,680 55

The increase in pay, which went into effect on the 25th of March last, of twenty-five cents per day, per man, and $150.00 per year for each of the four captains, amounting in the aggregate to $4,197.50, is the cause of overrunning the appropriation

called for at the beginning of the year, and necessitated the extra appropriation of $2,501.37.

There is included in the receipts the sum of $1,547.90, which was paid into the city treasury, January 27, 1883, by the clerk of the Third District Court of Eastern Middlesex, on account of the Police Department, but by error credited to the account of incidental expenses.

The organization of the force is the same as last year, and consists of a chief, four captains, six sergeants, and fifty-six patrolmen. Twelve patrolmen are on duty in the daytime, including one who has the care of Station 5. One sergeant is detailed as detective officer. During the night-time there are forty-four patrolmen on duty, — three as house-men, the rest divided into two reliefs. There are five sergeants on duty in the night-time, — one as house-sergeant at Station 1, and four as patrol-sergeants, whose duty it is to visit each route in his district as often as practicable, — all under the charge of the captain of the night police. In my judgment the interests of the city would be better served by using all the sergeants as patrol-sergeants, two in each police district, one having charge of each night relief.

Notwithstanding the excitement, and the demoralizing effect on a portion of the department in the early part of the year, caused by the charges against the chief, and the consequent hearing which followed, the department at the present time is in a fair state of discipline, and the ordinary work is being done without any apparent friction; a larger number of arrests has been made than in any previous year of my administration as chief; and, by referring to the miscellaneous business done in former years, the work of this year compares favorably.

Occasional inspection of the licensed liquor places has been made by the officers on each route, as in former years; and in all cases of violation of the law, reported by officers or citizens, complaints have been made to the Court.

Although a large number of dwelling-houses were vacant in the summer season, but few cases of house-breaking occurred, which I attribute largely to the efficiency of the mounted patrol maintained during those months.

The wire used for telephone purposes has been in use nearly

ten years, and, having become unreliable, it was found necessary to run a new wire last spring between Stations 1 and 5, at a cost of $90.31. A new wire will have to be put up throughout the other parts of the city the coming year, at an estimated expense of $125.

The station-houses are in good condition; the lock-ups, however, will need some repairs, especially that at the Lower Port.

Respectfully submitted,

FREDERICK W. HAGAR,

Chief of Police.

ANNUAL REPORT

OF

THE BOARD OF HEALTH.

To the Honorable City Council: —

The following is a statement of the receipts and expenditures of this Board for the financial year ending Nov. 30, 1883: —

Amount of appropriation		$1,500 00
Estimated revenue		100 00
		$1,600 00
Deduct amount transferred from		173 10
		$1,426 90

Received.

From Commonwealth, for expenses of contagious diseases in 1882	$83 01	

Expended.

Analysis of water	$15 00	
Bedding destroyed	10 00	
Burying animals	38 00	
Car-tickets	15 00	
Directory	2 50	
Expressage	15	
Expenses for protection of public health, fumigation, disinfectants, etc.	45 00	
Hand-stamp, repaired	2 50	
Legal services	70 00	
Medicines	2 70	
Printing and stationery	48 05	
Postage-stamps	10 00	
Salary, clerk of Board	150 00	
" health officer	1,000 00	
Vaccinations	18 00	
		$1,426 90

By direction of the Board of Health,

JOHN McDUFFIE, *Clerk.*

To the Honorable City Council of the City of Cambridge: —

In compliance with the public statutes creating Boards of Health we herewith present our annual report for the year ending December 31, 1883, and make such recommendations as we think necessary to improve the sanitary condition of the city.

The following table represents the number and character of nuisances abated: —

Vaults and cesspools cleaned	128
Vaults and cesspools built	4
Vaults repaired	12
Water-closets repaired	8
New water-closets	12
Vaults removed	9
Filthy yards	3
Stagnant water	1
Manure removed	5
Defective drains	78
New drains	11
Water from cow stable	2
Dead animals buried	51
Total	324

Six parties have been prosecuted in the District Court, one of whom was sent before the grand jury, two convicted, one acquitted, and the two other cases are still pending.

Six places of dwelling have been ordered vacated by the Board during the year; but, as five of these have been put into a proper condition by the owners, the order was executed in one case only.

Early in the spring complaint was made of the filthy and offensive condition of the grease-rendering establishment of John Coleman, near the foot of Harvey street, North Cambridge. The Board, after visiting the premises, ordered him to cease and desist from the business at once. As this order was not complied with he was prosecuted and convicted in the courts on the following complaints, viz., for creating a common nuisance and for occupying a building for the purpose of carrying on a filthy and offensive trade, without having first obtained permission of the Board of Aldermen, in violation of the Public

Statutes. On his promising to cease from his business and destroy the building the case was placed on file.

The number of nuisances complained of during this year is a little larger than that of last year; but, from the fact that house and property owners now, as a rule, respond to the first notice, instead of waiting, as was usual a year or two ago, for the second or third one, the work of the Board has not been much increased. This is an improvement in the right direction, and landlords are beginning to look upon boards of health as an assistance and benefit, rather than as an agency of tyranny and oppression, as was often the case when they were first organized.

Early in the summer complaint was made by citizens of Ward Four of the filthy condition of the Mill Pond, and the bad odor arising therefrom, and a communication was sent to the City Council, relating to the matter, by this Board. As nothing was done towards abating the nuisance the attention of the City Council was again called to the matter. Soon after a conference was had between this Board and the Committee on Public Property. At the suggestion of the Health Officer the pond was cleaned up as well as possible, and the ashes, etc., collected by the city carts, instead of being dumped in the deep part of the basin, as was then being done, were put along the westerly side in the most shallow part of the pond. Since then all the ashes collected in Ward Four, and a part of Ward Two, have been deposited here, and, consequently, the area of this filthy and offensive basin has been largely diminished; and before the warm weather of another year there is a fair prospect that this serious and most offensive nuisance will be abated. Two or three drains coming from premises in the immediate vicinity of the pond were found discharging their filth into it. The owners of these premises were notified to cut off such drains at once; after some delay, and, in one case, a prosecution, this was done. We believe there will be no further cause for serious complaint arising from this source.

During the late fall the sewer relieving the Coggswell-avenue district has been constructed, and all the estates on Coggswell avenue and those on Mead street, as far as the sewer is built, have been notified to connect with it. Most of them have done so, and all will be required to in the early spring. This

is a great sanitary improvement to that part of the city, doing away, as it does, with the filthy open ditch heretofore used. We think it important, and recommend, that sewers be constructed at once in Crescent and Hubbard avenues to connect with this new sewer.

Early last spring there was a loud and almost universal complaint of the foul and sickening odor in the vicinity of the Cambridge end of Craigie's bridge. This odor had been very offensive during the winter, and even in the fall of 1882, but latterly it had become intolerable. Early in May this place was visited by the City Engineers of Somerville and Cambridge, and the Health Officer, and an investigation made as to the cause and extent of the nuisance. They found deposited on the river bottom in this vicinity a dirty, black, offensive substance, in places to the depth of eight or ten feet. This deposit was found to extend above the bridge a number of hundred yards, although growing less in depth the farther it is from the outlet of the Bridge-street sewer, which is about one hundred feet from the Cambridge end of the bridge, and below the bridge as far as or farther than the Charlestown line. Much of the surface of this deposit is uncovered at low tide; but even when it is covered to the depth of five or six feet by the tide, gas, the product of the decomposition of this filthy mass, can be seen constantly bubbling up through the water. This gas is very pungent and acrid, causing a smarting sensation to the nostrils and throat, and is sickening and offensive to the smell beyond description. This matter unquestionably is part of the sewerage discharged by the Bridge-street sewer. The Engineers and the Health Officer also at the same time visited the outlet of the Binney-street sewer. In the immediate vicinity of this outlet the flats were clean and sandy, as well as the shore and bed of the river, so far as it could be seen, and there was no offensive odor even at the immediate outlet of the sewer. These two sewers — the Binney-street and Bridge-street — drain each about the same area, and about the same number of dwellings. Into the Bridge-street sewer there flows the additional drainage of the large hog-slaughtering establishments situated in Somerville, near and on the Cambridge line. In all other respects these two sewers are nearly alike, and this Board is firmly of the opinion that the

offensive and intolerable nuisance existing in the vicinity of Craigie's bridge is caused almost, if not quite, wholly by the substances discharged into this sewer by these slaughtering establishments. This matter is nearly all organic and much of it albuminous, and is, without doubt, when discharged into the sewer and from it, largely in solution, but by the action of the salt-water, or, more probably, by decomposition, is precipitated, but in such a fine state of division that it is so long settling that the returning tide pushes back the water charged with this substance above the bridge, between the wharves, and into all the little inlets along the shore, and there it remains long enough to have a large part of this matter deposited. This theory, and this alone, explains why so large a quantity of this substance is found above the bridge. As is well known this matter, under the direction of the City Engineer, was washed and dredged out during the last summer, which rendered the nuisance tolerable for a short time, but now the odor is nearly as offensive as at this time last winter, and this Board would earnestly recommend that measures be taken at once towards having this part of the river-basin cleaned again in the early spring. The experience of last year should teach us that if the work is to be done before warm weather, as it certainly should be, a move in this direction cannot be made too soon.

Many complaints have also been made of the filthy and offensive condition of Alewife Brook, and, as your Honorable Body is aware, a formal complaint has been made during the year by the town of Arlington in relation to it. During the dry weather of the fall this brook became very sluggish and offensive on account of the small amount of water in it, and late in the fall, under the supervision and direction of the City Engineer, it was cleaned, and since then it has been carefully examined by that officer in company with the Health Officer. Near where the Concord-avenue sewer enters the brook the water is quite clear and no odor is perceptible ; but near the bridge, where the Fitchburg Railroad crosses it, the odor is intolerable. This is caused by the sewage coming from Niles Brothers' slaughtering establishment. This sewage is conducted from this establishment by means of an iron pipe, beneath the railroad, that has its outlet below the surface of the water into the brook, immediately

under the bridge. About the end of the pipe there can be seen bubbling up the same black, filthy substance found about the outlet of the Bridge-street sewer, and having the same penetrating and sickening odor, which is very offensive for a number of yards down the brook; but at the North-avenue bridge it is slightly so, and the water here, since the cleaning, is fairly clear. There is also little or no odor about the outlets of the North-avenue and Dublin-street sewers. These facts make it reasonably clear that the nuisance existing in this brook is caused very largely by the decomposing animal matter discharged into it by the Niles Brothers' establishment.

We would most earnestly call the attention of your Honorable Body to these two most formidable and, as we believe, dangerous nuisances; the latter, by the proximity of Alewife Brook to Fresh Pond, being a constant menace to our water supply. The Bridge-street sewer nuisance is not only a very serious and disgusting annoyance to those passing over or near Craigie's bridge, but, in the opinion of this Board, is a constant danger to people living and employed in that part of the city. As the abatement of these nuisances not only interests the City of Cambridge, but adjoining cities and towns, we earnestly recommend the City Council to take such action as will lead to a consultation of the authorities of the different cities and towns interested, and a thorough consideration of the whole matter, or such other action as may be thought proper, looking to the permanent abatement of these nuisances. This Board makes this recommendation, fully appreciating the magnitude of these matters, and the great expense that must be incurred, and the difficulty to be met in permanently ridding ourselves of these more than serious nuisances.

We also call your attention to the privy vaults attached to the Allston School-house, Boardman street. These vaults are very large, being about twelve feet wide and eighteen feet long. The odor coming from so large an area of sewage when agitated, as it is three or four times a day by five or six hundred children using it, is not only very offensive, but more or less dangerous to the health of the occupants of the school-house. We believe that some arrangement should be made to conduct the sewage from this school-house directly and rap-

idly into the sewer, and that this large vault be done away with.

We again call the attention of the City Council to the very urgent necessity of a suitable building for the care and treatment of persons sick with contagious diseases. For information relating to the building now used for this purpose we make the following quotation from our report of last year: "The building now used for this purpose is an old one-story house, situated in the field at the rear of the almshouse. This house contains four rooms, each about twelve feet square, and adjoining each other in a row. The two end rooms have windows on two sides, while the middle rooms have windows on only one side, and there is no door or other means of communication between the second and third rooms. All the rooms are poorly furnished, with loose doors and windows, doors opening directly outside, no proper drainage, no water, except such as is brought in pails, no means of cooking, no cellar, no bath-room, and no conveniences in the way of a water-closet or even of a privy, except a leaky and very uncomfortable house, used for this purpose, situated at some distance from the hospital building. This place has been occupied four times during the past two years by patients suffering from contagious diseases. Fortunately these cases have occurred in the warmer months of the year, and we have been able to keep the patients fairly comfortable. Without doubt we shall require a building for the treatment of such diseases more or less every year."

As the Trustees of the Cambridge Hospital are about to build a general hospital, on their ground on Mount Auburn street, we believe that if some arrangement could be made with them by the city authorities to have this hospital for contagious diseases built on their grounds, and be maintained and operated by them or their agents, such a plan would be to the advantage of both parties.

During the summer a case of typhus fever occurred in a house on Jefferson street, it being a young woman who had been obliged to leave a house in Somerville, by the authorities of that city, by reason of the existence of a case or cases of typhus there. She was complaining of not being well when she came

to Cambridge, and in a few days her sickness developed into a fairly well-marked case of typhus fever. She was at once removed to the building used as a hospital for contagious diseases, near the almshouse, where she recovered.

The house from which she was taken in Jefferson street was thoroughly fumigated, and the bedding and clothing in the room occupied by her were burned. No other cases of this disease have occurred during the year.

Reference to the tabulated statement of the number of cases of scarlet fever, diphtheria, and typhoid fever, appended to this report, shows quite an increase in the number of cases of all these diseases over that of last year, while the proportionate number of deaths has been smaller. The deaths from diphtheria in the months of June and July, when there are usually none, or, at most, not more than one or two from this cause, were the result of an outbreak of this disease, in a very fatal form, in the vicinity of Brookline street. Fortunately this was of short duration. The large increase of the number of cases of scarlet fever reported has been caused by that disease appearing in a mild epidemic form during the last month of the year. This has also been the experience of the neighboring towns and cities.

We wish to express again our thanks to the physicians of Cambridge for their promptness in reporting contagious diseases. So far as we know, the report of only two cases failed to reach the Board in a reasonable time.

The number of deaths occurring in the last year, tabulated, classified, and given with this report, is a little larger than in preceding years. This increase is to be accounted for by the natural growth of the population.

D. H. THURSTON,
GEORGE F. PIPER,
H. P. WALCOTT,
Board of Health.

REPORT

OF THE

SUPERINTENDENT OF LAMPS.

To the Honorable City Council of the City of Cambridge: —

The undersigned respectfully submits his annual report of the department for lighting streets, for the year ending Nov. 30, 1883: —

The amount appropriated for the current year was $28,000.

The amount expended was as follows: —

For Gas	$18,167 66	
Care of lamps and lighting	6,655 06	
Posts and lanterns	377 12	
Repairs	378 03	
Expense of lighting Belmont district	148 13	
Glass	452 25	
Gas Co., labor, pipe, and fittings	320 62	
Gas-burners, boxes, belts, and glycerine,	298 75	
Stone guards for posts	75 00	
Torches	18 00	
Kerosene and matches	210 43	
Stopcocks	104 86	
Alcohol	152 46	
Printing	14 75	
Express	9 00	
Kerosene burners and chimneys	73 65	
Carriage-hire, Committee on Lamps	4 50	
Sundries	28 89	
Superintendent's salary	500 00	
	$27,989 16	
Cash collected for damages to posts, and paid into City Treasury	25 00	
Leaving the net expenditures for the year		$27,964 16

The cost per lamp for the maintenance of the department for the year was $32.10.

The number of street lamps in the city is as follows : —

District 1	171 gas,	15	kerosene.
" 2	158 "	21	"
" 3	158 "	17	"
" 4	178 "	3	"
" 5	161 "	14	"
Belmont district		10	naphtha.
	826	80	
Total			906

The increase in the number of lamps for the current year has been 44, 26 of which have been furnished by the city, and 18 have been paid for by petitioners for the location.

The street lamps have been lighted on 319 nights of the current year. The total number of hours burned was 2,266,922, an average of 2,794$\frac{1}{4}$ hours each lamp, or 9$\frac{2}{3}$ hours each night. The average cost of gas per night for each lamp was 7 cents; for each lamp burning kerosene, 2 cents.

Soon after I took charge of the department for lighting streets I discovered that the small number of street lamps in use would but very imperfectly light the large territory we covered, — nearly one hundred miles of highways, — there being at that time but 728 street lamps, most of them at long distances apart, and about two-thirds of them extinguished at 12 o'clock at night, leaving the streets in darkness until sunrise, and, in my first report to the City Council, in 1876, I recommended that all the street lamps be kept burning all night. The plan finally adopted was to make a gradual addition to the number of lamps burned all night until, on the 15th of April, 1883, the whole number of street lamps were included in the plan, and, by an agreement with the Cambridge Gas Co., the price of gas for the street lamps was reduced from $2.25 to $2.05 per thousand feet, and a new set of glycerine burners were attached to the lanterns for the purpose of giving a more uniform and steady light, and for the better regulation of the amount of gas burned. I venture again to call attention to the rule established by the City Council in 1852, and followed substantially to the

present time: "That whenever suitable iron posts and lanterns are erected at such points on any streets in the city as the Mayor and Aldermen may designate, the Mayor is authorized to cause such lamps to be lighted at the expense of the city." The result of this rule has been that in the business streets of the city, and other streets occupied by resident owners of real estate, the streets are now well lighted; while large portions of the city, inhabited mostly by poorer people, who are either unable or unwilling to incur the expense of posts and lanterns, have been left in darkness; and I would respectfully suggest that a complete lighting of the city would do much towards rendering it a desirable place of residence; and, as an aid to the police force, it would be of incalculable value. The interest on the cost of the post and lantern and the expense of lighting would be between three and four dollars per annum for each lamp. In European cities lamps are placed in all dark places, in courts and alleys, to prevent criminals from concealing themselves.

The city thus far has been lighted by the coöperation of private persons and the public, — the former providing the posts and lanterns, the latter paying the expense of lighting. It is manifest that there are many parts of the city where the abutters are unwilling or unable to bear any part of the expense. The public, the traveller, the stranger, need the benefit of street lamps. A change in the policy of the city, and the putting up lamps wherever needed, would work no injustice to those who have already erected lamp-posts at their own expense, for they have enjoyed, and will continue to enjoy, the benefit of all for which they have paid, and their share of the expense of performing a public duty would be slight.

It was formerly the practice to lay crossings where the abutters would furnish the stone; but it soon became apparent that for one abutter there were thousands of travellers who needed the accommodation, and the wiser practice has for a long time prevailed of putting down crossings where the public needed them, as a part of the street. No one has ever objected upon the ground that he had once been obliged to pay for the stones of a crossing near his own house. Is it not time to adopt a similar rule in relation to street lamps?

I believe the time has come when the custom of confining the increase of street lamps to parties petitioning and paying for the same should be changed, and the city pursue a more liberal policy. The citizens desire better lighted streets, and the assessment of the small amount necessary to be expended annually to accomplish this purpose will, I think, be cheerfully acquiesced in by the tax-payers, thereby securing better lighted streets and making the city safer by night.

I have the statistics of fourteen places in New England, giving the number of lamps in each to the mile of street main owned by the gas companies, viz. : —

Cambridge	12	New Bedford	21
Brookline	20	Portland	16
Charlestown	28	New Haven	14
Dorchester	25	Providence	18
Fall River	22	Salem	17
Fitchburg	18	Hartford	18
Lynn	17	Nashua	22

It will be noticed that Cambridge has a less number of lamps to the mile than any other place named. I could readily locate one thousand more lamps in Cambridge, at points where they are needed, and I respectfully suggest that two thousand dollars of the appropriation for lighting streets be expended annually, under the direction of the Committee on Lamps, for the location and erection of lamps in such parts of the city as in their judgment require better lighting. By adopting this plan we can in time get our streets lighted to the satisfaction of our citizens, the benefit of the city, and on an equality with the places I have quoted.

Another matter of importance to the citizens is the want of street signs in the lanterns. This does not come strictly under the supervision of the Lamp Department, but I have been requested to call attention to the inconvenience and annoyance caused to our people, as well as to strangers, especially at night, for the want of them, and I suggest that some measures be taken by the City Council to supply this deficiency.

B. F. NOURSE,
Supt. of Lamps.

REPORT

OF THE

SEALER OF WEIGHTS AND MEASURES.

To His Honor the Mayor and the Board of Aldermen of the City of Cambridge: —

GENTLEMEN, — In the performance of my duties I have visited during the year ending Nov. 30, 1883, 413 places where scales, weights, and measures are used, and have

Sealed 857 scales.	Adjusted 108.	Condemned 2.
Sealed 3,530 weights.	Adjusted 114.	Condemned 10.
Sealed 30 dry measures.	Adjusted 6.	Condemned 2.
Sealed 182 liquid measures.	Adjusted 6.	Condemned 6.
Sealed 9 yard measures.		

The scales belonging to the city have been sealed and adjusted, and office-work of the usual kind and amount has been attended to. The fees collected, amounting to $306.31, have been paid into the city treasury.

The State and city property in possession of the Sealer is in good condition, and remains the same in quantity as last year.

B. F. NOURSE,
Sealer of Weights and Measures.

REPORT

OF

THE INSPECTOR OF MILK.

To the Honorable Mayor and Board of Aldermen of the City of Cambridge: —

Gentlemen, — I herewith submit my fourth annual report as Milk Inspector.

The past year has been one of unusual uncertainty for the milk business as regards supply to the regular dealers or wholesale trade.

Owing to the extreme dryness of the season most cattle in the New England States were obliged to be house-fed in August, and necessarily a limited supply was the result, and a rise in price. Many of our milkmen were obliged to advance the price to families, owing to the above cause.

The price at the cars, commencing April 1st, was 33 cents, which was advanced October 1st to 40 cents per can, while the retail price was 6 and 7 cents per quart to family trade in summer, and 7 and 8 cents in winter.

The price of milk has been a leading advertisement among certain stores in various sections of our city, which has developed a lively competition for the trade among a few of the wholesale dealers, and the buying and selling price has been so low as to require often and persistent inspection to keep this class of trade regulated as to the quality of the article sold; but I am happy to state that the store trade, or supply usually sold at stores, is rapidly diminishing, families getting their full supply from their regular milkmen, — being convinced that the quality is of standard merit; an opinion I have referred to in former reports, and recommended.

Many visits have been made to the neighboring towns on the

invitation of dealers (of whom complaint had been made) to inspect their supplies as gathered from the farmers. The inspection proved that the cattle were fed largely on brewers' grains and vegetables, — a practice which is carried on to a great extent in the immediate neighborhood of cities where breweries exist, and which is the source of most of the complaints made to the Inspector.

It has been a source of gratification to me to know that a large number of our citizens have interested themselves in the workings of this department the past year, and have frequently called on me with samples for inspection, and for information which is always cheerfully given; and, if a complaint proves just, a mention of the fact to the dealer is followed at once by improvement.

A number of samples of butter were brought during the year for inspection by parties who were anxious as to the nature of the article they were buying, believing it was oleomargarine. The article was bought for dairy butter, and at market prices. My own judgment, as well as that of a chemist, determined the samples to be genuine butter. Most of our dealers who sell oleomargarine sell it principally for cooking purposes only, and the prejudice formerly existing against the article is fast disappearing, and people buy it now as any other article of food, without comment.

The number of wholesale dealers registered and licensed for the year ending Nov. 30, was 219; stores registered, 75; making in all a total of 294, from which were received for license fees, $147, which sum was, as heretofore, by special order given to me as additional salary.

I would again call the attention of the City Council to the propriety of increasing the salary of the office, the fees to be paid into the city treasury monthly, as in all other departments. It would be more satisfactory and business-like.

Thanking you, gentlemen, for uniform courtesy and support in the discharge of my duties,

I am, respectfully yours,

JOHN H. FARRELL,
Milk Inspector.

Cambridge, Nov. 30, 1883.

ANNUAL REPORT

OF

THE INSPECTOR OF VINEGAR.

To the Honorable Mayor and Board of Aldermen of the City of Cambridge:—

Gentlemen, — My fourth annual report as Vinegar Inspector is herewith submitted.

Quite an unusual interest was manifested the past year in the quality of vinegar sold in our city, and a great many samples were sent for inspection, and many were obtained for like purposes from all sections of our city. Careful examination determined the facts, already referred to in former reports, of a miserable quality of vinegar, made up of poor acetic acid. None showed the presence of sulphuric acid or copperas, which are the dreaded articles the law was intended to guard against, and which I am free to say are almost driven from our Eastern markets.

If the law was amended, establishing a standard for the quality of vinegar sold, as in other articles subject to inspection, it would result in ridding the market almost entirely of the poorer grades above referred to, and at the same time be of sanitary benefit to our people.

Respectfully submitted,

JOHN H. FARRELL,

Vinegar Inspector.

Cambridge, Nov. 30, 1883.

REPORT

OF THE

SCHOOL COMMITTEE FOR 1883.

The School Committee of 1883 respectfully submits the following Report, as gathered from the reports of the various sub-committees: —

High School.

This school continues under the same corps of teachers as last year, and the energy and skill with which the work is carried on are not abated.

There is no time wasted by the teachers during the sessions of the school, and a large amount of work is done by them out of school hours; no one who visits the school can fail to see how thoroughly and persistently this work is done.

The results are gratifying: 70 boys and girls graduated last year, — of these 14 were in the classical department, 46 in the English, and 10 in the commercial course. Students from the graduating class entered Harvard and Boston Universities, the Massachusetts Institute of Technology, and Wellesley College.

The number who entered the High School in September last was larger than in any year since 1878.

The great need of the school is better accommodations.

The divisions of the fourth class, especially, are too large; our female teachers in this class, with 25 and 35 pupils in each division, and most of the time 25 or 35 additional seated in the room, are worked to the last degree of endurance. No remedy can be applied without increased accommodations.

We trust that our City Government will make early provision for the High School; that the building, for which plans

are already in its possession, will be begun, and that in its provision for the highest instruction, which is freely offered to every child within its limits, the City of Cambridge may not be behind the other cities of the State.

Grammar Schools.

There are few changes to record in the management of these schools; the most important is the appointment of two sub-masters, one each for the Washington and the Putnam Schools.

The committee was very fortunate in securing for these positions the services of Mr. John W. Freeze and Mr. Herbert H. Bates, accomplished and experienced teachers.

We have lost during the year the very valuable services of Miss Caroline A. Dresser, master's assistant at the Washington School, who has accepted a more lucrative position in another State. It is one of the disadvantages of an otherwise convenient system of graded salaries that we have no power to retain a desirable teacher by increasing her pay to the amount offered by other towns.

Few people in our community have any adequate idea of the amount of hard labor bestowed on the children by their teachers, or of the amount of mental anxiety that they undergo. If the teacher had only to teach, and if the children were all teachable, the position would be a bed of roses; but a great deal of the labor is expended in attempting to develop dull minds, and in disciplining idle, sluggish children.

A bright, willing, well-behaved child needs very little teaching; it is the slow, the idle, the wilfully difficult children who use much more than their share of the teacher's time and attention. If there were more coöperation on the part of the parents the task would be much lighter; but in too many cases the parents appear to be as indifferent as their children, and consider it a hardship that they should be expected to take any responsibility. Fortunately the parents are not all of this kind, and the teachers sometimes receive grateful and kindly help from them, which encourages them in their work, and strengthens their influence with the children.

About one-half of those who enter the grammar schools go

through the course; it is safe to say that a great part of those who drop out are dull, or idle, or both. Can nothing be done for these children who are thrown out upon our community half developed? It is of vastly more importance that these children should be looked after than the comparatively few, bright, willing boys and girls who pass into the High School.

Primary Schools.

There are probably more striking results shown in our primary schools than in those of any other grade. Nearly half of all the children in our public schools are in the Primary Department.

About fifteen hundred children enter these schools every year. They come from all classes of society, — from the most refined homes, and from the most ignorant; from the best surroundings, and from the worst. They all enter the school in about the same mental condition; for the supposed superior intelligence of the child with refined home influences is offset by the self-reliance which falls to the lot of those who are less carefully sheltered and nurtured. They are given the same instruction, and they receive it with equal readiness.

In the three years of this course those who have but little care at home learn to be clean and tidy, to come to school promptly, and to behave in an orderly manner while there. The teacher gives to these children the care that those more fortunately placed receive from their mothers, — and with excellent results.

In the same time they have learned to read fairly well; to write more than fairly well, — indeed, their writing would put to shame many of their elders. They have sufficient command of numbers for the ordinary purposes of life; their memories have been strengthened, and their tastes improved by recitations of poetry, and by other means; they have enough knowledge of vocal music to give them pleasure all their days, and the skill and facility which they show in drawing are quite remarkable. Even if they go no farther in their school life they have a sufficient equipment to carry them through life intelligently.

The methods in use in the primary schools are excellent;

the influence of Froebel has not been, by any means, confined to the so-called Kindergarten. Many of our teachers, who have a natural aptness for their work, make the school-room a very paradise for the little folks entrusted to their care. Habits of order and neatness are inculcated, politeness of manners encouraged, and their morals are carefully looked after.

To many of the children the teacher is the only woman of culture and good manners with whom they come in contact. How important, then, that our teachers should be selected with the greatest care! And the suggestion may not be amiss here, that our primary teachers should, in addition to their other accomplishments, speak the English language as it is spoken by well-bred people. In no other way can we stem the tide of the slovenly use of language which we hear everywhere, — in the schools, in the street-cars, in the shops, — than by insisting that in the primary school the children should hear only good English from the lips of the teacher. It is not an easy thing to reform bad habits of speaking contracted in childhood; but if one intends to be a teacher she should use persistent effort to overcome this defect, or seek some other means of earning a livelihood.

In nearly all of our primary schools there are boys of twelve years old and upwards who are not likely to go farther in their school education.

Some of these boys are what are called "dull scholars," and may be fairly good in their behavior; but most of them are troublesome, and their presence does harm to the younger children. The harm is also to the boys themselves, who have lost all ambition and self-respect.

In some cases the local committee has removed these children to the sixth grammar class, trusting that they may take in intuitively some instruction which they cannot receive intellectually. There are teachers in our Grammar schools who have been very successful with boys of this kind, giving them, it is true, much more time and pains than their proportionate share.

Still, these children never get beyond a certain point intellectually, and after the end of the year in the Grammar School they drop out altogether. It is quite probable that they never

afterwards open a book. What becomes of them, and for how much of their after-life are we responsible?

The State is not bound to teach trades or professions; but when we teach a child the alphabet we open the door to all professions. What avenue do we assist in opening for those who wish to follow mechanical trades?

Our higher education is for intellectual people, and it is the best of its kind; but for the thousands who go out into the world to earn their daily bread by the sweat of their brows we have done but little; all their knowledge of handicraft has to be learned after leaving school.

Some years ago our Superintendent, in his annual report, advised opening an ungraded school, to meet the wants of a class of children who need special training. If such a school could be established, where boys could be taught the use of simple tools, would it not meet the wants of a large number of boys who never get beyond the third class in the grammar schools? The experiment of industrial education, as tried in Boston the past year, has been found very beneficial, and quite inexpensive.

The City School.

This school, at present, consists of 25 pupils, — 3 girls and 22 boys; 12 of these being under sentence.

The whole number in the past year amounted to 39. There are 3 primary classes, and a sixth, fifth, and fourth grammar class.

These children have much done for their comfort and enjoyment, and are well and happy. Their progress in school is as satisfactory as can be expected in the short time they remain.

Evening Schools.

The last Legislature passed a law, requiring all cities and towns of ten thousand or more inhabitants to maintain one or more evening schools.

In compliance with this law, the committee opened three evening schools; one in Ward 3, one in Ward 4, one in Ward 5.

It is impossible to report upon their usefulness and efficiency at this time, as they have been open but a few weeks. The attendance thus far has been good, and the committee having them in charge has made rules for their government and discipline which are working well. The following is a copy of the rules: —

CITY OF CAMBRIDGE.

RULES RELATING TO EVENING SCHOOLS.

Evening schools for adults, and for children over fourteen years of age, who are unable to attend the day schools, may be established by the Committee on Evening Schools, subject to the following rules: —

1. No school shall be opened until thirty scholars have previously pledged themselves to attend the same regularly; and any evening school shall be discontinued when the average attendance for the preceding ten sessions has fallen below twenty.

2. No person shall be admitted to an evening school after the first week without a ticket signed by a member of the Committee on Evening Schools, or by the Superintendent of Schools.

3. (*a*) Any pupil absent four sessions out of ten shall forfeit his membership, and shall not be reinstated without the written consent of the committee in charge of the school, or of the Superintendent of Schools. If under this rule he again loses his membership, he shall not return to school without the written consent not only of the committee in charge of the school, but also of one other member of the committee, or the Superintendent.

(*b*) This rule shall also apply to pupils discharged for disorderly conduct.

4. Any person unable, for satisfactory reasons, to attend regularly may make special arrangements with the committee in charge of the school. These arrangements, however, shall be written on the back of the ticket of admission.

5. The principal of each school shall preserve the tickets of admission, and the permits for readmission; and he shall also keep such records as the Committee or Superintendent shall require.

6. Each school shall have a principal and two assistants. The number of additional teachers for any week shall be determined as follows: —

From the average attendance of the preceding week subtract thirty-five and divide the remainder by twelve; the quotient, excluding the fraction, will be the number of additional teachers that may be employed. Should the fraction be two-thirds, or larger, one more teacher may be employed.

Cambridge, Nov. 13, 1883.

The Training Class.

The Training Class, organized in the autumn of 1882, on the discontinuance of our training school, consisted at first of twelve graduates from that school.

These, in pursuance of the order establishing such class, have acted as assistant teachers, and as substitutes when necessary in the primary and grammar schools, under the supervision of the superintendent and a special committee.

None of the original members of the class are at present unemployed, and most, if not all of them, have already obtained permanent situations in our schools.

Other applicants have taken their places on the list, which, however, is not large; and it is sometimes difficult to find a substitute in case of the enforced absence of a teacher.

Music.

Music, as taught in the primary schools, still maintains its character as an admirable discipline, as well as a means of recreation and exercise. That the singing in the grammar schools was never in better condition than it is to-day is partly due, so far as the boys are concerned, to the fact that they are able now to realize that music means business as well as pleasure and honor.

There are fifty or more boys belonging to these schools who are members of choirs in Boston, Cambridge, and the vicinity, and who are receiving the best instruction from the choir masters, besides small salaries ranging from ten to fifty dollars a year.

This puts music in the category of those arts which bear pecuniary fruits, even with boys of nine or ten years of age. Eleven boys were selected for the college choir, now in successful operation, and the effect of this species of promotion upon the attention and care given to the study of music in the schools is salutary.

Drawing.

In order to quicken and freshen the interest felt in the teaching of drawing, the committee on that branch of study procured

from Prang & Co. the favor of a series of lectures, or familiar talks. These were four in number, three given to the primary-school teachers, and one before the teachers of the grammar schools. They were really lessons in teaching, by the able author of the revised edition of the drawing-books used in our schools, known as the American Text-Books of Art Education. The lecturer also visited some of our larger schools, and inspected the work of the pupils.

Sets of the simpler forms of solids have been introduced into the schools, and paper and lead-pencils placed in the hands of the first primary class. This will be found of value as to writing, as well as drawing, when the pupils enter the grammar school.

School-houses and Health.

With regard to the sanitary condition of the school-houses most of the report of last year is true of their present condition.

The case of the Willard School is an exception, where the out-buildings have been thoroughly renovated. There has been a slight improvement in several other schools, partly in consequence of greater care on the part of the teachers.

Some of the primary teachers need to be reminded that the oversight of the children in the yards and out-buildings during recess is just as much a part of their work as the instruction given in the school-room. The teacher must enforce the observance of habits of cleanliness and delicacy at all times and in all places.

In a number of the primary schools there are children who remain in the room during recess, at the request of their parents. This prevents the thorough ventilation of the school-room by opening windows at that time, — the only effectual means we have of clearing the room of bad air. The attention of parents is earnestly called to this evil. In pleasant weather, well wrapped up, every child who is well enough to go to school is better for being in the open air at recess, and the health and well-being of forty or fifty other children should not be sacrificed to the wants of two or three.

There has been one new school-house erected during the past

year, — in Ward 1. It has been named the "Lowell School," in honor of our distinguished poet, near whose residence the school-house is located.

The crowded condition of the schools in Wards 2 and 3 calls for a new building near the boundary between those wards.

Examination of Teachers.

Last year the Committee on Examination of Teachers was increased in its number from five to ten members, and the work of the year was as evenly distributed among them as possible. Twenty-seven teachers were visited during the year; eleven of these had been nominated for positions in the grammar schools, and fifteen for the primary schools. Of this number all but two were reported upon favorably, and confirmed by the Board. Six nominations not acted upon have been referred to the committee of 1884.

Truant-Officers.

The work of the truant-officers has been very efficient, and the schools have been greatly benefited by their faithful services. They are an important factor in the discipline of the schools, and the value of their services is shown in the increase of the average attendance of pupils. Ten habitual truants have been sentenced, and nine are on probation.

Morals.

It is certain that for the five best hours in the day the children are under good, wholesome moral influence; exception may, perhaps, be taken to the two recesses of fifteen minutes each, in which there may be opportunities for bad children to corrupt the morals of others, providing there is not proper supervision at those times by the teachers.

In the grammar schools it is believed that this supervision is carefully made, — one or more teachers being in the yard during the whole time of recess. The appointment of sub-masters for our grammar schools will add much to their efficiency in this respect.

In the primary schools this very important matter is not so

well attended to as it should be; many of the teachers are young, inexperienced girls, who have no knowledge of the dangers to which children may be exposed. On the other hand, there are older and wiser women among our teachers, who are on the alert for the slightest sign of immorality; and the relation between the children and their teacher is such that every improper act or word becomes speedily known to her, not in the way of tale-bearing, but by the artless indignation of the little people themselves.

But we have to remember that the school is but one factor in the education of a child. What good has been done in the school may be undone by the street, — a very formidable rival. The teacher should be held responsible for the five hours in which the children are under her charge. It is for the parents to see that our streets shall be fit for our children to walk in.

In passing groups of boys in the streets it is almost an exceptional case when one does not hear profane language. Policemen and citizens pass by without a word of warning or advice. Where men congregate in the streets there will you see the boys gather also. It is said that coarse men refrain from using bad language in the presence of little girls; but who shall protect our innocent little boys?

If the laws against bad language in the street and in public places could be enforced there is no doubt but that an improvement in the morals and manners of our school-children would soon be effected.

In our republic, with our pride in self-government, any infringement upon what we consider individual liberty is looked upon with jealous eyes; but is not a wise supervision compatible with healthy liberty?

The public thoroughfares of Cambridge swarm in the evening with boys and girls of school age, unattended by their parents or elders. When we consider that the baser elements of our city find themselves on these streets every evening it is useless to deny that the children are in great danger from their corrupting influences.

After the excitement of the free-and-easy life in the brilliantly lighted street, how dull and uninteresting the school,

with its lessons and confinement, the next day! What folly to talk of "high pressure" in our schools!

Not all the combined influence of church and school can counteract the baneful teachings of the street!

Temperance.

The Women's Christian Temperance Union of Cambridge sent in a petition to the School Committee, endorsed by many prominent citizens, asking that twenty minutes in each week should be set apart for instruction in our schools on the effects of alcohol upon the human body, by the aid of text-books on that subject, two of which were suggested in the petition.

The matter was referred to a special committee, which, by a majority, reported that it was inexpedient to grant the petition, on the ground that our teachers are required by the laws of the State of Massachusetts to "exert their best endeavors to impress on the minds of children and youth committed to their care and instruction, the principles of piety and justice, and a sacred regard to truth; love of their country, humanity, and universal benevolence; sobriety, industry, and frugality; chastity, moderation, and temperance; . . . and it shall be the duty of such instructors . . . to point out to them the evil tendency of the opposite vices."

There was also a minority report. The majority report was accepted by the School Committee.

Text-Books.

The committee reports that the volume of "Hawthorne," in the "Little Classic Series," was found too difficult for the sixth class in the Grammar School, and was ordered to be used in the fifth class. Sheldon & Co.'s "Fourth Reader" and Swinton's "Fourth Reader" were adopted for use in the fifth class, at the option of the teacher. These books are for supplementary reading; they are owned by the city, and loaned to the scholars. They are used from year to year in the school, and thus give a variety of reading matter, with no expense to the parents.

Hooker's "Book of Nature" was dropped from the list of books used by the third and fourth classes.

Swinton's "School Geography" was substituted for the one previously used in the fourth class. This entailed no new expense upon the parents, as, at this stage in the course, the Primary Geography in use in the fifth and sixth classes is dispensed with, and is replaced by a more advanced book, which gives the children all that is required for the remainder of the course, and is also a valuable atlas for home use.

The Evening Drawing Schools.

There are two of these schools, one for mechanical and one for free-hand drawing, both under the supervision of one master, with competent assistants. The instruction is excellent.

In the school for mechanical drawing the pupils are mostly earnest young men, who are occupied with some business or trade during the day, and have a definite end in view in pursuing this study. The instruction is largely by black-board illustration, accompanied by the oral teaching of the master.

The Free-hand School presents quite a different aspect. Here are gathered young men and young women, all busily occupied in copying from casts and from the flat. Some of the pupils are teachers in our schools; some are learning to be designers and artists, and some are merely studying art as an accomplishment.

The average attendance at both of these schools has not been so large as is desirable; but means have been taken by the committee in charge to secure a better attendance in future, and that this valuable instruction, so freely given, shall be for the benefit of those only who really desire it.

Salaries.

There has been no change in the salaries of teachers during the past year.

There has been an increase of 280 pupils and 12 teachers, requiring an additional appropriation for salaries.

It may be reasonably expected that during the current year there will be a corresponding increase of pupils and teachers, which will increase the appropriation for salaries accordingly.

The committee does not anticipate any difficulty in procuring competent teachers for the current year at the salaries now paid. It may be thought advisable to increase the salaries of the primary teachers, and make them equal to those paid the teachers in the grammar schools; for it requires as important work in the primary department of schools as in higher grades.

JAMES A. FOX, *Chairman, ex officio*,
JOHN L. HILDRETH,
CLEMENT L. SMITH,
FRANCIS FLINT,
PHEBE M. KENDALL,
BENJAMIN F. TWEED,
HENRY N. TILTON,
EDWARD B. MALLEY,
ASA P. MORSE,
WILLIAM H. ORCUTT,
SARAH S. JACOBS,
WILLIAM A. START,
ALBERT M. BARNES,
} *School Committee.*

TABULAR VIEW

OF THE

PUBLIC SCHOOLS OF CAMBRIDGE.

JANUARY 1, 1884.

Name of Schools.	Teachers.	Salary.	No. of Scholars Jan. 1, 1884.
High School,	William F. Bradbury....	$2,800	423
	Theodore P. Adams.....	2,000	
	John Orne, Jr.	1,700	
	Solon F. Whitney.....	1,700	
	Edwin L. Sargent.....	1,700	
	Mary F. Peirce	950	
	Emma A. Scudder.....	950	
	Hannah Gleason	950	
	Emma F. Munroe.....	950	
	Mary C. C. Goddard.....	800	
	Margarette M. Leighton .	800	
	Louisa P. Parker	800	
Allston Grammar,	Benjamin W. Roberts ...	1,900	655
	Mary I. Vinton	700	
	Mary K. Bush	620	
	Mary M. Brigham.....	570	
	Mary Blair	570	
	Carrie Close.....	620	
	Hattie F. Fabyan	520	
	Hannah L. Hill	620	
	Melissa M. McKinley....	620	
	Celia F. McFarland	520	
	Emily R. Pitkin.....	620	
	Lizzie B. Shepherd.....	520	
	Ida G. Smith	620	
	Carrie M. Williams	620	
Harvard Grammar,	James S. Barrell	1,900	667
	Ada H. Wellington	700	
	Margaret B. Wellington .	620	
	Susan F. Athearn.....	620	
	Emily F. Damon.....	620	
	Mary F. Emerson.....	620	
	Myra I. Ellis	620	
	Estelle J. French.....	620	
	Frances Fabyan.....	620	
	Elizabeth I. Garcelon....	620	
	Sarah E. Golden.....	620	
	Cora E. Hosmer.....	620	
	Susan E. Merrill.....	620	
	N. Maria Stevens	620	
	Hortense O. Young.....	620	

TABULAR VIEW OF THE PUBLIC SCHOOLS. — *Continued.*

Name of Schools.	Teachers.	Salary.	No. of Scholars Jan. 1, 1884.
Harvard Grammar,	Lizzie J. Baldwin	$200	
	Caroline Hanks	200	
Putnam Grammar,	Thomas W. Davis	1,900	460
	Herbert H. Bates	1,000	
	Eliza M. Hussey	700	
	Annetta Bruce	520	
	C. E. Doran	620	
	Anna B. Josselyn	620	
	Annie Knapp	620	
	Augusta G. Mirick	620	
	Eliza A. Paddock	620	
	Maria E. Spare	620	
	Martha R. Smith	620	
	Annie L. Savage	620	
	Alice L. Watts	570	
Shepard Grammar,	Edward O. Grover	1,900	459
	Fannie A. Cooke	700	
	Anna M. Allen	520	
	Emily F. Fessenden	620	
	Nellie A. Hutchins	620	
	Ellen J. Hunt	620	
	A. Estelle Ingraham	620	
	Ruth E. Lander	620	
	Evelyn J. Locke	620	
	Julia H. Osgood	620	
	Sarah A. Rand	620	
Thorndike Grammar,	Ruel H. Fletcher	1,900	531
	Lelia A. Mirick	700	
	Delia Brennan	520	
	Ella W. Clark	620	
	Grace W. Fletcher	620	
	Emma A. Hopkins	620	
	Abby A. K. Howard	620	
	Elizabeth G. Hutchinson	570	
	Martha A. Martin	620	
	Margaret J. Penney	520	
	Elizabeth P. Regal	620	
	Isabella B. Tenney	620	
	Abby S. Taylor	620	
Washington Grammar,	Daniel Mansfield	1,900	556
	John W. Freese	1,000	
	Eldora J. Clark	620	
	Lucy A. Downing	620	
	Emma P. Eaton	620	
	Carrie H. Hazeltine	620	
	Mary H. Hanks	620	
	Adeline M. Ireson	620	
	Adelaide A. Keeler	620	
	Adelaide A. Keith	620	
	Hattie Shepherd	570	
	Mary E. Stiles	620	
	Abby M. Webb	620	
	Mary A. Wheeler	620	

TABULAR VIEW OF THE PUBLIC SCHOOLS. — *Continued.*

Name of Schools.	Teachers.	Salary.	No. of Scholars Jan. 1, 1884.
Webster Grammar,	John D. Billings	$1,900	667
	Lizzie C. Capen	700	
	Marion H. Burnham	620	
	Ella E. Buttrick	620	
	Charlotte M. Chase	620	
	Alice K. Crosby	570	
	Mary J. Folsom	570	
	M. Lizzie Ford	520	
	Esther F. Hannum	620	
	Carrie M. Kingman	620	
	Josephine E. Karcher	520	
	Anna S. Lamson	620	
	Clara E. Matchett	620	
	Alice C. Phinney	620	
	Mary E. Towle	620	
	Mary A. Townsend	620	
	Ella C. Whitney	620	
Corlett Grammar,	Fannie P. Browning	620	79
	Emma C. Edson	620	
Boardman Primary,	Mary A. Lewis	620	348
	Augusta L. Balch	600	
	S. N. Chamberlain	600	
	Mary E. Jennings	500	
	Elizabeth J. Karcher	600	
	Sarah E. Stewart	600	
	Evelyn A. Sawyer	600	
Bridge Primary,	Elizabeth E. Dallinger	620	78
	Emily C. Dallinger	600	
Cushing Primary,	Isadore I. Foster	620	72
	Winona Abercrombie	600	
Dana Primary,	Maria F. Williams	620	119
	Abby A. Lewis	600	
	Cordelia J. French	200	
Dunster Primary,	Susan E. Wyeth	620	86
	Sarah B. Waitt	600	
Felton Primary,	Sarah J. Gunnison	620	143
	Florence A. Davis	500	
	Fanny C. Hartwell	600	
Gannett Primary,	Sarah J. A. Davis	620	185
	Anna M. Jones	600	
	Mary A. Rady	600	
	Carrie H. Smith	600	
Gore Primary,	Frances E. Pendexter	620	531
	Maria J. Bacon	600	
	Addie M. Bettinson	600	
	Mary A. Bourne	600	
	Anna E. Callahan	400	
	Elizabeth B. Gahn	500	
	Sarah D. Graham	600	
	Lizzie J. Hawkins	600	
	Mary E. Mulloney	600	
	Nellie L. Pike	600	
	Louise A. Stickney	400	

TABULAR VIEW OF THE PUBLIC SCHOOLS. — *Continued.*

Name of Schools.	Teachers.	Salary.	No. of Scholars Jan. 1, 1884.
Harvard Primary,	Helen M. Ward	$620	146
	Ellen A. Cheney	600	
	Mary M. Tingey	400	
Holmes Primary,	Marianne M. Webb	620	165
	Mary L. Bullard	600	
	Ellen M. Cyr	600	
	Isabel Foster	500	
Lassell Primary,	Nellie F. Ball	620	204
	Ella R. Avery	600	
	Cora A. Reycroft	600	
	Frances E. Whoriskey	600	
Lowell Primary,	Talulah G. Abercrombie	620	109
	Lucy E. Cyr	400	
	Sarah M. Grieves	200	
Mason Primary,	M. Lizzie Evans	620	120
	Julia F. Clark	200	
	Josephine H. Davis	600	
Otis Primary,	Luvia Goodnow	620	390
	Fannie Allen	600	
	Martha H. Butler	600	
	Josephine M. Doherty	600	
	Ellen N. Leighton	600	
	Mary E. Smallidge	600	
	Ellen C. Walsh	600	
	Kate F. Wellington	600	
Quincy Primary,	Charlotte E. Jewell	620	76
	Lucy C. Wyeth	600	
Reed Primary,	Mary E. Parsons	620	154
	Harriet N. Keyes	600	
	Margaret Kidd	600	
	Helena V. Eaton	200	
Riverside Primary,	Elizabeth A. Tower	620	176
	M. Louise Akerman	600	
	Amanda M. Alger	600	
	Ella E. Coye	500	
Sargent Primary,	Frances J. Harrod	620	177
	Mary A. Brown	600	
	Eliza J. Mitchell	600	
	Mary E. Woodman	600	
Tarbell Primary,	Evelina Brooks	620	168
	Mary H. Ross	600	
	Annie C. Teel	500	
	Emma J. Young	400	
Willard Primary,	Amelia Wright	620	454
	Louise W. Harris	600	
	Harriet A. Hamlen	600	
	Mary E. G. Harrington	600	
	Kate M. Lowell	600	
	Emma C. Otis	600	
	Mary E. Sawyer	600	
	Laura Wright	600	
	Grace R. Woodward	600	
Wyman Primary,	Fannie E. M. Dennis	620	220

TABULAR VIEW OF THE PUBLIC SCHOOLS. — *Concluded.*

Name of Schools.	Teachers.	Salary.	No. of Scholars Jan. 1, 1884.
Wyman Primary,	Letitia Dennis	$600	
	M. Carrie Dickman	600	
	Mary M. Gilman.....	600	
	Frances H. Dawson.....	600	
Agassiz School,	Charlotte A. Ewell.....	620	257[1]
	Harriet A. Butler	620	
	Maria L. Baldwin.....	600	
	Emma A. Child.....	600	
	Dora B. Dean	400	
	Rosina C. Karcher	500	
City School,	Julia S. Gushee	620	22[2]

Teacher of Singing. — Nathan Lincoln	$1,700
Superintendent. — Francis Cogswell	2,700
Superintendent's Assistant. — Cora M. Wetherbee . .	200
Librarian and Secretary of High School. — Jessy L. Cate,	200

[1] Including a Grammar Class (86), and Primary Classes (171).

[2] Including Grammar Scholars (12), and Primary Scholars (10).

SUMMARY.

Number of pupils in High School	423
" " Grammar Schools	4,172
" " Primary Schools	4,302
	8,897

COST OF INSTRUCTION.

High School	$16,100 00	For each pupil	$38 06
Grammar Schools	71,970 00	" " "	17 24
Primary Schools	54,540 00	" " "	12 67
Music Teacher	1,700 00		
Superintendent	2,700 00		
Superintendent's Assistant	200 00		
Librarian and Sec'y of High School	200 00		
	$147,410 00	For each pupil	$16 55

Number of pupils belonging to Public Schools, Jan. 1, 1884	8,897
" " " " " Jan. 1, 1883	8,617
Increase	280

Average annual increase of pupils from 1860 to 1874, inclusive	246
Decrease of pupils, 1875	268
Increase of pupils, 1876	6
Decrease of pupils, 1877	81
" " 1878	50
Increase of pupils, 1879	57
" " 1880	286
" " 1881	403
" " 1882	448
" " 1883	280

Number of distinct schools	32
" separate rooms	195
" separate teachers	212

REPORT

OF

THE SUPERINTENDENT OF SCHOOLS.

To the School Committee of Cambridge: —

I respectfully submit the following as my report for the year ending Dec. 31, 1883, it being my ninth report, and the fifteenth of the series of annual reports of the Superintendent of Public Schools.

SUMMARY OF STATISTICS.

I. — Population.

Population of Cambridge by the State census for 1880	52,740
The number of children in the city between five and fifteen years of age, May 1, 1883, as reported by the Truant-Officers . .	10,490

II. — Schools.

1 High School, with eleven separate rooms.
8 Grammar Schools, with ninety-three separate rooms.
23 Primary Schools, with ninety-one separate rooms.
2 Evening Drawing Schools, with two separate rooms.

Whole number of Day Schools	32
Whole number of separate rooms	195

III. — School-houses.

For the High School	1
For the Grammar Schools	8
For the Primary Schools	22

IV. — Teachers.

Number of teachers in High School	12
Male teachers, 5; female teachers, 7.	
Number of teachers in Grammar Schools	104
Male teachers, 9; female teachers, 95.	
Number of teachers in Primary Schools	95
Number of teachers in Evening Drawing Schools, 1882–3 . . .	4

Whole number of teachers in Day Schools, including teacher of music 212
Number of teachers who have attended Normal Schools 125
Number of teachers who have graduated from Normal Schools . 112

V. — Pupils.

Attendance at all the Day Schools, 1879 to 1883.

Year.	Number of Pupils Registered.	Average Number Belonging.	Average Daily Attendance.	Per Cent. of Attendance.
1879	8,500	6,957	6,385	91.8
1880	8,537	7,175	6,614	92.2
1881	8,912	7,434	6,759	91.0
1882	9,395	7,898	7,231	91.5
1883	9,691	8,194	7,523	91.8

Attendance at the High School, 1879 to 1883.

Year.	Number of Pupils Registered.	Average Number Belonging.	Average Daily Attendance.	Per Cent. of Attendance.
1879	504	455	424	93.2
1880	485	440	411	93.3
1881	484	430	403	93.7
1882	460	426	403	94.6
1883	438	396	375	94.6

Attendance at the Grammar Schools, 1879 to 1883.

Year.	Number of Pupils Registered.	Average Number Belonging.	Average Daily Attendance.	Per Cent. of Attendance.
1879	3,862	3,352	3,117	92.9
1880	3,931	3,439	3,205	93.1
1881	4,039	3,572	3,309	92.6
1882	4,147	3,627	3,360	92.6
1883	4,186	3,728	3,462	92.8

Attendance at the Primary Schools, 1879 to 1883.

Year.	Number of Pupils Registered.	Average Number Belonging.	Average Daily Attendance.	Per Cent. of Attendance.
1879	4,118	3,140	2,835	90.2
1880	4,110	3,287	2,990	91.0
1881	4,369	3,418	3,033	88.7
1882	4,775	3,834	3,456	90.1
1883	5,067	4,070	3,686	90.5

Number of Pupils Admitted to, and Graduated from, the High School and the Grammar Schools, 1879 to 1883.

Year.	Admitted to High School.	Graduated from High School.	Admitted to Grammar Schools.	Graduated from Grammar Schools.
1879	152	64	817	204
1880	155	51	864	230
1881	150	87	771	238
1882	145	67	815	226
1883	172	70	958	251

Number of Pupils belonging to the Evening Drawing Schools, with the Average Attendance, 1879 to 1883.

1879.	1880.	1881.	1882.	1883.
139	150	159	153	159
56	71	67	66	89

Number of Pupils over Fifteen Years of Age belonging to the Day Schools on the First of May, 1879 to 1883.

1879.	1880.	1881.	1882.	1883.
614	603	507	523	586

Number of Pupils in the Twenty Private Schools in Cambridge, 1879 to 1883.

1879.	1880.	1881.	1882.	1883.
1,610	1,748	1,743	1,752	1,844

Table Showing the Number in Each Course in the High School, December, 1883.

Year.	Classical Course.	Full English Course.	Commercial Course.	Number of Divisions.
Fifth	20	..	..	1
Fourth	15	47	..	3
Third	39	44	..	4
Second	69		16	5
First	143		30	7

[For the first two years the Classical Course is identical with the Full English Course. The Commercial Course is one of two years only, and is confined wholly to English studies.]

Table Showing the Number in Each Year of Attendance in the High School, December, 1883.

Year.	Boys.	Girls.	Total.	Per Cent.
Fifth	8	12	20	.049
Fourth	17	45	62	.146
Third	40	43	83	.196
Second	35	50	85	.200
First	72	101	173	.408
Total	172	251	423	

Table Showing the Number in Each Class in the Grammar Schools, December, 1883.

Class.	Boys.	Girls.	Total.	Per Cent.
First	157	174	331	.079
Second	230	254	484	.116
Third	297	330	627	.150
Fourth	390	399	789	.189
Fifth	366	402	768	.184
Sixth	559	614	1,173	.281
Total	1,999	2,173	4,172	

Table Showing the Number in Each Class in the Primary Schools, December, 1883.

Class.	Boys.	Girls.	Total.	Per Cent.
First	600	595	1,195	.277
Second	663	657	1,320	.306
Third	919	868	1,787	.415
Total	2,182	2,120	4,302	

Summary of the School Census, as taken by the Truant-Officers, May, 1883.

[The statutes make it the duty of the School Committee annually to ascertain the names and ages of all persons belonging to their respective towns and cities on the first day of May, between the ages of five and fifteen years.]

Number of children in the city five years old or more, but less than fifteen 10,490

Number in Public Schools five years old or more, but less than fifteen 7,928

Number in Private Schools five years old or more, but less than fifteen 1,527

Number not attending school five years old or more, but less than eight 531

Number not attending school eight years old or more, but less than fourteen 288

Number not attending school fourteen years old or more, but less than fifteen	216
Whole number not attending school five years old or more, but less than fifteen	1,035
Number in the city eight years old or more, but less than fourteen	6,435

VI. —Finances.

Cost of instruction in Day Schools	$144,457 60
Text-books and stationery for Day Schools	2,855 49
Incidental expenses for Day Schools	1,249 40
Cost of Evening Drawing Schools	749 00
Care and repairs of school-houses	28,587 44
Cost of Lowell school-house	12,271 63
Cost of furniture for Lowell School-house	671 70
Cost of finishing third story Gore School-house	2,605 30
Cost of new furniture for Gore School-house	696 80
Cost of new furniture for other school-houses	667 41
Total expenditures for all school purposes	$194,811 77
Deducting receipts from the Hopkins Fund ($779.62) and for tuition of non-resident pupils ($227.00), actual cost of the schools to city	$193,805 15
Assessed value of real and personal estate, May, 1883	$51,797,340 00
Ratio of expenses for school purposes to the valuation of 1883	.0037

Cost of Instruction in the Day Schools, 1876 to 1883.

[Salaries of teachers, superintendent, and truant-officers.]

Year.	Whole Cost.	Average No. of Pupils.	Cost per Pupil.
1876	$164,818 00	7,066	$23 32
1877	151,946 65	7,139	21 28
1878	136,491 20	7,028	19 42
1879	132,570 49	6,957	19 05
1880	130,371 75	7,175	18 17
1881	132,501 10	7,434	17 82
1882	137,328 55	7,898	17 38
1883	144,457 60	8,194	17 63

Cost of the Day Schools, 1875 to 1883.

[The expenditures for new school-houses and new furniture are not included.]

Year.	Whole Cost.	Average No. of Pupils.	Cost per Pupil.
1875	$212,960 72	7,167	$29 71
1876	200,894 09	7,066	28 43
1877	180,974 36	7,139	25 35
1878	162,437 77	7,028	23 11
1879	158,196 21	6,957	22 73
1880	153,967 56	7,175	21 45
1881	158,282 84	7,434	21 29
1882	166,230 52	7,898	21 04
1883	177,149 93	8,194	21 62

Remarks on the Statistics.

There has been an increase over last year of 296 in the number of pupils registered; of 296 in the average number belonging; of 292 in the average daily attendance. The per cent. of attendance has been but slightly changed, it being three-tenths of one per cent. higher than last year.

In the cost of instruction, which is made up of the salaries of the teachers, superintendent, and truant-officers, there has been an increase of a little more than seven thousand dollars, the increase per pupil being twenty-five cents. The cost per pupil, however, is nineteen cents less than in 1881.

The whole cost of the day schools, excluding expenditures for new school-houses, has been nearly eleven thousand dollars more than last year, making the cost per pupil twenty-one dollars and sixty-two cents, while last year it was twenty-one dollars and four cents, — fifty-eight cents less than for the present year.

In 1875 the cost per pupil was twenty-nine dollars and seventy-one cents; in 1879, twenty-two dollars and seventy-three cents; while for 1883, as has been stated, it has been

twenty-one dollars and sixty-two cents, one dollar and eleven cents per pupil less than in 1879.

School Accommodations.

The new school-house in Ward 1 was completed about the middle of October, and was named the Lowell school-house in honor of James Russell Lowell. The rooms were at once occupied, one by a grammar class, the other three by primary classes.

The house is similar to the one built in Ward 4 in 1882. It is of wood, two stories high, exclusive of the basement. Its length is 66½ feet, and its width 44 feet. Each story contains two school-rooms, 27½ by 31, two dressing-rooms, 5 by 20, and a hall or entry of ample dimensions. In the upper story there are also two small class-rooms, about 9 by 10. The land, house, and furniture cost $13,000.

In Ward 3, the upper story of the Gore School-house was finished during the summer vacation, giving four additional rooms for the accommodation of the schools in that ward. Two of these rooms are now occupied by classes belonging to the Putnam Grammar School, the remaining rooms in the building (ten in number) by those of the primary grade. The cost of the work done on this school-house, including the expense of new furniture, was thirty-three hundred dollars. Additional heating power is needed, and should be supplied before another winter.

During the year the Committee on Public Property has made quite extensive repairs on several of the school-houses. The Allston, Webster, and Willard buildings have been thoroughly renovated, the ceilings being whitewashed and the walls tinted. At the Willard, also, the plan of the out-houses has been changed, and the unpleasant odor from them is no longer perceptible.

I have thus briefly referred to what has been done in relation to school accommodations the past year. What are the pressing needs for the year to come?

A new school-house is needed in Ward 4, and the work at the High School could be carried on to better advantage with

more ample accommodations. The most imperative demand, however, seems to be for a school-house in Ward 2, to accommodate the children living north of that part of Cambridge street between the railroad crossing and Winsor street. The city owns a lot of land at the corner of Columbia and Lincoln streets; it also owns land on Jefferson street. The best plan, in my judgment, would be to move the Gannett school-house to Jefferson street, to be occupied by the little children; then to build a school-house of seven or eight rooms on Columbia street, to be used for the higher primary and the lower grammar grades. But, even if the Gannett school-house cannot be moved the present year, I would build the new school-house on the lot owned by the city on Columbia street.

I have now presented the usual statistics and have compared them with those of previous years. I have also spoken of the provision made during the past year for the accommodations of the schools, and of their needs for the coming year. This being the information needed by the City Council in making the annual appropriations, I suggest that only this part of my report be printed in the City Documents, a desire having been expressed to reduce the size of that volume. What I have to say upon other subjects relating to the schools can be seen in the separate report of the School Committee and Superintendent.

FRANCIS COGSWELL,
Superintendent of Public Schools.

REPORT

OF THE

CEMETERY COMMISSIONERS.

To the Honorable City Council: —

The thirtieth annual report of this Board, comprising the financial year ending Nov. 30, 1883, is respectfully submitted.

The amount appropriated for cemeteries at the beginning of the year was	$12,500 00
Additional appropriation	3,408 73
Total	$15,908 73
The amount expended was	15,908 73
The estimated amount of receipts was	$12,500 00
Actual amount of receipts	11,342 12
Deficiency	$1,157 88

Following the usual custom in relation to the maintenance of the Cambridge Cemetery, the City Council of 1883 assumed that the receipts during the year for sale of lots, burial fees, and from other sources of income connected with the cemetery, would be sufficient to cover the ordinary expenses for the care of the grounds. No appropriation was made for this purpose beyond the sum of $12,500, estimated as the revenue of the cemetery. The lack of available single lots for the purpose of sale, and the necessity of extra expense in the preparation of additional family lots, combined to reduce the sales, and also to increase the cost of maintenance.

From the report of this Board for the previous year it appears that the amount received for sale of burial lots was		$7,474 24
For care of lots		3,116 32
Total from these two sources . . .		$11,590 56
The amount received from sale of burial lots in 1883 was . . .	$6,212 35	
For care of lots	2,489 29	
		8,701 64
Reduction in receipts from these sources,		$2,888 92

The cost of preparation of additional lots, as compared with the year 1882, not including the item of labor, was as follows :—

Loam and manure, 1883	$2,329 48
" " " 1882	1,273 99
Additional cost in 1883	$1,055 49
Add amount of reduction in receipts from sales, etc.,	2,888 92
	$3,944 41

It will be seen, from the above statement, that the need of available lots for sale has become forcibly apparent in the reduced income from this source, and in the increased outlay for the preparation of lots, the deficiency in the amount of receipts and increased cost for loam and manure more than covering the extra appropriation required at the end of the year.

As hereinbefore stated, the total expenses were .	$15,908 73
Total receipts	11,342 12
Excess of expenses over receipts . . .	$4,566 61

For a detailed account of the receipts and expenditures under this head of appropriation, reference is made to the annual report of the Auditor of Accounts.

The number of interments during the year was	558
Whole number of interments in the cemetery	13,060
Number of lots prepared during the year	9
Number of lots now ready for sale	87
Estimated value of such lots	$20,774 89
Amount received in 1883 for perpetual care of lots	$850 00
Amount of perpetual fund for the same	$5,250 00

In reference to the work accomplished in the laying out of the grounds during the year it may be said that the knoll at the right of the entrance of the cemetery has been graded, and it will contain 51 lots, of 300 square feet each, and 41 lots, of 80 square feet each. That portion of the grounds in rear of Lawn avenue has also been graded, and will contain 87 lots, of 300 square feet each. But little more can be done in the preparation of burial lots for sale, and the necessity for additional territory for cemetery purposes calls for immediate action by the City Council.

During the past year a joint special committee was appointed to confer with this Board in the matter of the enlargement of the cemetery, and several conferences were had with that committee. Visits were made to lands adjoining the cemetery, and attempts at negotiation with owners were also made. No conclusions, however, were reached in these conferences; and it is therefore recommended to the incoming City Council that a committee similar to that of 1883 be appointed to coöperate with this Board in the matter of the required enlargement.

All of which is respectfully submitted.

JAMES A. FOX,
GEO. T. GALE,
CURTIS DAVIS,
SILAS B. BUCK,
SAMUEL W. McDANIEL,
GEO. S. SAUNDERS,
JOHN F. O'BRIEN,

Commissioners of Cambridge Cemetery.

APPENDIX.

APPENDIX.

REPORT OF THE COMMITTEE ON GERRY'S LANDING.[1]

The special committee of this Board, appointed March 5, 1883, to ascertain what rights, if any, the City of Cambridge and the public have in Gerry's Landing, so called, and any way leading thereto, would respectfully submit the following report: —

Believing the matter to be of much public importance and historic interest, and learning that claims were asserted adverse to the alleged rights of the public in said way and landing, of which prior city governments have had vague impressions and some slight investigation, your committee has deemed it best to examine, with some care, the history and title of the premises and of abutting lands, and to report at length the evidence upon which it bases its conclusions.

All records of the General Court, of Watertown and Cambridge, relating to the landing, way, and lands adjacent, and covering a period of nearly two hundred and fifty years, have been examined; the evidence of former owners of adjacent lands, and of old residents and past officials familiar with the way and landing, and their use, in past years, has been obtained, and, in addition, such information as an inspection of the premises discloses. The claims adverse to the alleged rights of the public have been heard and carefully investigated by the committee. It is believed that all sources of information have been exhausted. The committee would gratefully acknowledge the assistance they have received from many

[1] This report was made to the Board of Aldermen, April 23, 1883. It was accepted, and the order accompanying it was adopted. They are here printed by order of the Board. The plan referred to is necessarily omitted.

citizens who have shown much interest in the investigation, particularly from Dr. Morrill Wyman and Charles F. Walcott, Esq., to whom they are indebted for a thorough examination of original records; from Mr. Morrill Wyman, Jr., and William A. Hayes, Esq., who have given other valuable information, and from the various official departments of the city that have aided the committee. A map, drawn by the City Engineer, is annexed to this report, which shows the way, landing, and lands adjacent.

We find that Gerry's landing (also called in old records and deeds "Oliver's landing," and "landing near Samuel's hill") is situated in Ward 1, on the left bank of Charles river, at a point where the course of the river turns sharply from north to east, and a little north-east of an arm of the river that narrows into a creek, commonly known as Coolidge creek; that a way (called in Bond's "History of Watertown" Water street) leads from the landing in a north-westerly and westerly direction, and joins Mt. Auburn street at its intersection with Elmwood avenue. Aside from record evidence, the location of the landing is a matter of public notoriety, and is fixed by the nature of the ground and by its old timbers, which can still be traced. The way is distinctly marked throughout its whole length, and for one-half its length from Mt. Auburn street is now used and travelled as a road.

The landing was the original town-landing for Watertown, and, with the way leading from it, is mentioned in the early records of that town soon after its settlement in 1630, and continued a part of Watertown till annexed to Cambridge, April 19, 1754, in a grant of the General Court of the Province of Massachusetts Bay. (See Records of Gen. Ct., Vol. xx., pp. 228, 229.) As early as 1644 the way to the landing is described as a "highway" in the grant of that date to Sir Richard Saltonstall of land to the north-east, a portion of which is now owned by the Cambridge Hospital, and is numbered three on the plan annexed: "Sir Richard Saltonstall, 1, one housestall of sixteen acres by estamation, bounded the North-east with Thomas Brigan and Robert Keie, the South-east with the river, the South-west with *the highway*, and the North-west George Phillips, granted to him." (See Watertown Records, Division of Land,

p. 98.) Across the way, and opposite the above premises, were two and one-half acres of land reserved for many years as a town marsh (see plan, lot 4), but in 1743 sold by the town to Stephen Sawin. In this grant the way and landing are clearly defined as follows: . . . . "Northerly by the town way leading to the river. The said way to be left as follows, viz. at the Bank next the River there the way to be four rods and three paces wide, and at the end of eight rods west from said bank there said way to be left three rods and three paces wide (this width reserved for accommodating landing at the River) then said way slants off gradually till it comes to one rod and a half, and so the remainder of the way against said piece of land to be left one rod and a half wide." The westerly bound is "by common land left out for the accommodating the watering-place there," referring to a small triangular lot (see plan, lot 5), on which was a spring. (See Watertown Records, Book 4, pp. 255–258.) The subsequent grants of these lands contain the fullest recognition of this way and landing. Thus, in the grant of Sawin to Caldwell of lot 4 (formerly the town marsh), under date of Jan. 18, 1744 (Middlesex Deeds, B. 47, p. 88), the way is called "a town-way," the watering place on the west, "common land," and the bridle-path, which forms the south-westerly bound of said lot, also "a town-way," — and the recognition is emphasized by adding "the said town-ways as to their width to be left as described in ye Com^{ttees} Report accepted by ye Town of Watertown, aforesaid, and recorded in said Town Records, Lib. 3^{d}. (error for Lib. 4) pages 257–258." In the grant from Caldwell to Hastings, July 23, 1748 (Midx. Deeds, B. 49, p. 629), of the same lot, there is the same description and reference to the way as in the deed to him; the common land, which was used for a watering-place, is more definitely fixed as extending "about one rod east from the spring." The next change of title to the lot by grant (Hastings to Hastings, July 20, 1831, B. 316, p. 30), gives no particular description and no bounds; the subsequent grants of Hastings to Wyeth, of Nov. 2, 1837 (B. 370, p. 44), and of Wyeth to Jos. G. Coolidge, — the present owner, — of Nov. 18, 1867 (B. 1030, p. 165), describe it only as "the town marsh, on and near Charles River," but reserve "any right which the

public or individuals or the original proprietors of the town of Watertown or of Cambridge or either of those towns as towns . . . . may lawfully have in and to any part of said marsh or the land adjoining or the wharf or landing-place at the river aforesaid on said marsh or near to the same or in or to the way leading to said wharf or landing-place, if any such right exists."

Twice at least, and within one hundred years, the owners of the land north-east of the way granted to Sir Richard Saltonstall, in 1644, as above stated, and now held by the Cambridge Hospital and Thompson (lots 2 and 3 on plan), have recognized in their deeds the existence of this way and landing. In 1807 Thomas Lee in his grant to Wm. Thompson (B. 176, p. 325) of these lots, bounds them on the way and calls it "the road leading westward from the wharf"; and Page, as recently as March 9, 1883, in his grant to the Cambridge Hospital (B. 1625, p. 140), describes the land as running "to Charles River; thence to Gerry's Landing, so-called; thence north-westerly, in an irregular line by the ancient roadway leading to said landing, to land of Edward Thompson."

The same careful recognition of the rights of the public and of Cambridge, in the landing and way, is made by the owners of other abutting lands. Thus, Lot 1 on plan, in deed of Wellington to Smith, in 1818 (B. 227, p. 237), is bounded "southerly and westerly on common land belonging to the town of Cambridge," — without doubt the way, — and, again, so bounded in deed of Parker to Coolidge, its present owner, dated June 8, 1861 (B. 875, p. 89). Lot 5, opposite lots 1 and 2, for many years common land reserved for a watering-place, in 1826 was granted to Rachel Smith by deed of Hill and others, as a Committee of Proprietors of common and undivided lands (B. 274, p. 276), and in this deed said lot is bounded "North-easterly by an ancient town-road leading to the wharf or landing place by or on Charles River, and North-westerly by a line extending from the North-westernmost point of land formerly of Rachel Smith, on the North-east side of the ancient highway aforesaid, across the same to the North-east side of the bridle-way aforesaid." This description is followed verbatim in the deed to the present owner, Jos. G. Coolidge, from Parker, dated June 8, 1861 (B. 875, p. 89). Lot 6, in deeds of Thatcher

to Gerry, in 1793 (B. 114, p. 32), of Gerry to Melville, in 1811 (B. 190, p. 329), and of Melville to Josiah Coolidge, whose heirs are its present owners, in 1821 (B. 236, p. 422), is bounded on the way, described as "the road leading from Oliver's wharf, so called, to Watertown." Lot 7, the only other land abutting on said way, and not already mentioned, is bounded in successive grants by the way described as "the continuation of the great road to Watertown leading to Charles River." See deeds, Gerry to Sarah Orne, in 1809 (B. 182, p. 56), of Josiah Coolidge to Sarah Orne, in 1825 (B. 259, p. 359), of Sarah Orne to Austin, in 1826 (B. 270, p. 109), and of Episcopal Theological School to Hayes, its present owner, in 1877 (B. 1434, p. 595). There is not a piece of land abutting on said way that has not, in changing ownership, recognized the way as a road or highway to the landing, and made it a bound to fix exactly its own location.

The official records of Watertown and Cambridge are equally explicit. In 1770, a few years after the annexation to Cambridge of territory that included the way and landing, the towns of Watertown and Cambridge being at issue as to their respective rights in said landing, their Selectmen, on November 19th of that year, met, and agreed to a division of the landing between the two towns; by their joint vote they then declared "That the Road or Way leading down to the Landing Place on Charles River by the side of Samuel's Hill, is the King's Highway." (See Watertown Town Records, Book 6, p. 29.)

The town records of Cambridge of this date (Book B) more fully describe the proceedings, as follows: "Be it remembered, that on the 19th Day of Nov., 1770, The Selectmen of Cambridge and the Selectmen of Watertown, being met together to determine the Respective Rights of the Two Towns aforesaid to the Landing Place on Charles River by the side of Samuel's Hill, in Cambridge, It was mutually agreed upon by and Between the Selectmen of said Towns, that the Choice of the Two parts of the said Landing Place be determined by Lott, and thereupon Two Lotts being cast, on the one the word North being wrote, on the Other the word South being wrote, they were put into a Hat, and being drawn out, the Lot North was drawn by the Selectmen of the Town of Cambridge, and the

Lott South by the Selectmen of the Town of Watertown. Whereupon It was agreed by & between the Selectmen of the said Towns of Cambridge & Watertown; That the moiety or one half Part of said Landing Place from the North be and remain to the said Town of Cambridge forever, and the Other moiety or a half part of said Landing Place from the South be and remain to the said Town of Watertown forever. In witness whereof The selectmen of the said Towns of Cambridge and Watertown Have hereunto Interchangeably set their Hand the Day and Year aforewritten.

WM: BRATTLE,
EBENR: STEDMAN,
EDWD: MARRETT,
JOSEPH WILLINGTON,
JOSEPH ADAM, JUN.,
THŌ: GARDNER,
} *Selectmen of Cambridge.*

JONATH: BROWN,
MOSES STONE,
JONAS WHITE,
JONATHAN BEMIS,
NEHEMIAH MASON,
} *Selectmen of Watertown."*

"At a Meeting of the Selectmen of the Town of Watertown on Monday the 19th November, 1770.

"Voted unanimously. First. That the Road or way Leading down to the Landing Place on Charles River by the side of Samuel's Hills Is the King's Highway. Secondly. That any Gate, Barrs, or fence across said way is not to be considered as continued by the consent of us the Selectmen of Watertown, vizt. Because it is the King's high way.

JONa. BROWN,
MOSES STONE,
JONAS WHITE,
JONATHAN BEMIS,
NEHEMIAH MASON."

"At a Meeting of the Selectmen of the town of Cambridge on Monday the 19th. November 1770. —

"In consideration of the above Vote of the Selectmen of Watertown and for Divers other Considerations, unanimously Voted, first. That the Road or way Leading down to the Landing Place on Charles River by the side of Samuel's Hill Is the King's highway. 2^{dly}. That any Gate, Barrs or fence across said way is not to be Considered as Continued by the Consent of us the Selectmen of Cambridge, viz^{t}. Because it is the King's highway.

W^{m}. BRATTLE,
EBENEZ^{r}. STEDMAN,
EDW^{d}. MARRETT,
JOSEPH WILLINGTON,
JOSEPH ADAMS junr:
THOM^{s}. GARDNER."

"At a legal meeting of the Town of Cambridge, Nov^{r}. 23^{d}. 1770, upon the Petition of Thomas Oliver, Esq^{r}. Praying that he might have liberty to build a wharf upon said Town's landing Place, near Samuel's Hills in said Town,

"Voted that liberty is hereby granted to the said Thomas Oliver, Esq^{r}. to erect a wharf on the place aforesaid for his sole Profit, subject to the same Regulations as other wharfs in the said Towns are, upon Condition that he erect said wharf within Twenty months from the first day of December Next and Deliver to the Town or their order said wharf in good tenantable repair at the expiration of said repairs, extraordinary casualties excepted, and that he give his own security to the Selectmen of said Town for the Performance of the same. He also payin as acknowledgment a pepper corn a year to the Treasurer of Cambridge annually for the use of said Town.

"That the Prayer of Colo. Oliver's Petition be granted upon the following Condition, viz^{t}. He shall within two years from the first Day of December next erect a good wharf upon the landing place near unto Samuel's Hill in Cambridge belonging to said Town & at the expiration of said Thirty years shall leave said wharf in good tenantable repair, extraordinary casualties excepted. He also paying a pepper Corn a year acknowledgement.

"Voted, that the agreement Entered into by the Selectmen of Cambridge & the Selectmen of Watertown relative to the highway leading to the landing place near Samuel's Hill, to the landing place itself, Dated November 19th 1770. & signed by the majority of them be and hereby is accepted & that the same be forthwith Recorded in Cambridge Town books of Records together with the Votes that accompaney sd agreament."

Early in this century the landing and way seem to have fallen into disuse; the rights of the town and public therein in consequence were less well known, and several times were the subject of investigation and action in town meeting. In the Warrant for the town meeting, held May 8, 1820, was contained, — "Art. 5th. To see if the Town will appoint a Committee to ascertain what interest the town have in a certain Wharf and land situated near the line between Cambridge and Watertown." At this town meeting it was voted "that the subject of the fifth article be committed to the following Committee, viz.: Saml. P. P. Fay, Esq., Doct. T. L. Jennison, and Royal Makepeace, Esq." (Town Records C, pp. 353, 354.) In the record of the town meeting held March 5, 1821, it appears that "The Committee heretofore appointed to ascertain the interest of the town in a certain Wharf and land made a report. Whereupon Voted that said report be accepted. Voted that the Selectmen be a Committee with authority to sell and convey all the right, title and interest which the town have in the wharf and land described in said report." (Town Records D, p. 11.) We regret to say that a careful search of the town records fails to discover this report.

The action of the town indicates that the committee found that the town had rights of some value in the wharf and land. There is no record of any sale by the town under this vote, or under a subsequent vote of like tenor, to be referred to. At a town-meeting, March 7, 1825, a committee was appointed to make an investigation in relation to all the common lands in the town and an examination of the titles thereto. In their report, March 6, 1826, they say: "The town appears to own the northerly half of the lot on which the old wharf stood which belonged jointly to Cambridge and Watertown before the division of that lot by said towns. The committee doubted

whether this property is within the limits of the inquiry which the town authorized and requested them to make ; but some respectable inhabitants suggested the expediency of mentioning this property here in connection with the property of the town above-mentioned, and referring to the report of the committee of the town on this subject, dated August, 1820 (the lost report), which contains the history of the title of this lot and references to the records and evidence which prove it. See also the Records of Cambridge, Book A, Nov. 19, 1770." (Town Records D, p. 156.) At a town meeting of April 3, 1826, by adjournment from the annual meeting of March, it was voted, "That the Selectmen be and they are hereby authorized to sell and convey all the right, title, and interest which the town have in and to the lot on which the old wharf stood, formerly called Oliver's wharf, which belonged jointly to Cambridge and Watertown, before the division of that lot by said towns. Provided they should be offered what they should consider a reasonable price." (Town Records D, p. 146.) At this meeting a committee, consisting of Abraham Hilliard, Judge Fay, and others, was appointed to consider among other "subjects committed to them," the following: "the expediency of selling and conveying such pieces or parcels of land as belong to the town." The committee, in a report May 6, 1826, drawn by Mr. Hilliard, said that this question was "confined to two parcels of land belonging to the town, to wit: . . . 2d. The northerly half of the lot, on which the old wharf stood, which belonged jointly to Cambridge and Watertown before the division of that lot by said towns. . . . In relation to said northerly half of the lot above-mentioned, the committee think it expedient, that it should be sold, if a reasonable price can be obtained therefor, and they recommend to the town to appoint and authorize a committee to sell and convey the same, if, on inquiry, such price as shall appear to the committee adequate, shall be offered therefor." (See original report on file.) On the margin of the report it is noted that the Selectmen were authorized to sell (referring probably to the vote above stated) ; but apparently the "reasonable," "adequate" price was never offered, as we find no record of any sale.

In a list of streets of the city, made up in pursuance of an

Ordinance of June 16, 1846, soon after our municipal charter, the way is included as a street "from Mt. Auburn street to the Landing Place," and it is there recited that "The Selectmen of Cambridge and Watertown, 19th November, 1770, declared this to be the King's Highway . . . and that the town ordered these proceedings to be recorded; T. R."

The landing is still mentioned in the annual city reports as public property; as such in 1867, and for many succeeding years, the city used it for a public bathing-place. Under direction of a committee of the City Government, the materials for the bath-house were carried in over the old road to the landing. This use of the way and landing was made without license from any individual, but as a matter of right. Mr. William Wright, the chairman of that committee, says: "In 1867 a public bathing-place was established at the Landing. I was on the committee of the City Government that had the matter in charge. We asked nobody for right to use the Landing and way. I hired Mr. L. S. Hayes to build the bath-house; showed him the way, and with him drove over it. He carried the timber over the way every day for nearly a week in his own team." Mr. Hayes corroborates this statement. Your committee had also before it the statement of Mr. Joseph G. Coolidge, who writes: "I heard my grandfather say that in the deep snows of the winter of 1780 the farmers of Watertown drove their teams of wood and produce, such as they had for sale, on to the ice at this landing and continued on to Boston, leaving the river at some place on Charles street, thence through the cow-pasture at the West End to the heart of the city"; of a Miss Daniels, who lived on land adjoining the way thirty-seven years ago; and of C. F. Orne, who lived there many years ago, who say: "The way to the river was a public way, open to all. No one had a right to close it. If there was a fence it had bars to let down. It was an open, common way, free to all from the beginning by the road down to the river. We used to call it the lane"; of Mrs. Wyeth, widow of Jonas Wyeth, a former owner on the way, who remembers Mayor Green and William Saunders (who died April 29, 1861) taking possession, as a committee of the city and in its behalf, of the old way to the Landing. She says: "My husband never

claimed any rights in the way; he knew it to be a public highway, but hoped he might get it at the time of taking possession by the committee"; and of Mr. W. A. Hayes, a present resident on the way, who has seen, since 1867, travel on foot and in teams over part of the way.

The title deeds of abutting lands; the official records of Cambridge and Watertown; the acts of the City of Cambridge; the use by the public, and the declarations of old residents and of former owners of abutting lands, seem to your committee conclusive evidence that Gerry's Landing, so called, belongs to the City of Cambridge, and that the way leading to it from Mt. Auburn street is a public highway, and has been almost "from a time whence the memory of man runneth not to the contrary"; and such we find to be the fact, unless said rights of the city and public have been abandoned or lost by adverse possession.

To this question your committee has given particular attention, examining with some care the law and facts that bear upon it.

We believe the law to be that a way may be established: (1.) by an original laying out of it by proper authority; (2.) by prescription and use; and (3.) by dedication. The first requires a location, notice, adjudication, and other formal proceedings of record; the second "is established upon evidence of user by the public adverse and continuous for a period of twenty years or more; from which use arises a presumption of a reservation or grant, and the acceptance thereof, or that it has been laid out by the proper authorities, of which no record exists;" the third "is created by the permission or gift of the owner, and upon the acceptance of such gift by the public authorities it becomes a way, and the owner cannot withdraw his dedication."

Endicott, J., Com. *vs.* Coupe, 128 Mass., 65.

And we find as facts, (1.) That there is no record of a laying out of said way; probably, because at the early date (1644) to which the existence of said way has been traced, there were no formal proceedings of this nature that were made a matter of record. (2.) That there has been such prescription and use by the public as to establish said way, — such use running back

for many generations, and continuing to some extent almost to the present day; further, a recognition of the way in the grants of abutting lands from 1644 to 1883, mention of it as a way in official records of Watertown and Cambridge, and repeated assertions by both said towns that it was a way. (3.) That in the grant of Watertown to Sawin, in 1743, there was a reservation, stating dimensions, of the way from and including the landing to the watering-place; that, Nov. 19, 1770, both towns voted the way was "the King's Highway"; that their vote, and acts before and since said date, and its use, were an acceptance, express or implied, of said reservation, which, in law, would make said reservation a public way by dedication or location.

Hobbs *vs.* Lowell, 19 Pick., 405.

We, therefore, find the way to the landing to have been established as a public way; we believe it to have been, technically, a "highway" within the definition of our Supreme Court; that "the term is applicable to all great roads, leading from town to town, to markets, and *to public places*, and denotes a way that is common to all passengers."

Hubbard, J., Harding *vs.* Medway, 10 Met., 469.
Valentine *vs.* Boston, 22 Pick., 75.

But whether the way is called, as in some records, "The Highway," "The King's Highway," or, as in others, "the town way," "the road," "an ancient town road," "the continuation of the great road to Watertown," "common land belonging to the town of Cambridge," we believe the rights of the public and the duty of the city are the same. "All town ways . . . . are, in truth, public highways; for the public, without discrimination, has the right to use them; and this is true as to all open ways."

Wilde, J., Parkes *vs.* Boston, 8 Pick., 227.

"The distinction between a town way and a highway rather refers to the manner in which they are originally established, than to their legal character when established; the public at large have the same beneficial use of a town way as of a highway; it is equally the duty of the town to keep them in repair;

and an indictment will lie for a failure in the performance of this duty."

Shaw, C. J., Com. *vs.* Boston, 16 Pick., 444.
Valentine *vs.* Boston, *supra.*

As to the boundaries of said way: We believe the law to be that, if the boundaries of a way are known, or can be made certain by records or monuments, they shall be so established; otherwise, fences or buildings fronting upon or against the way, and so continued for more than twenty years, shall be conclusive evidence of the true boundary thereof.

Pub. Stat., Chap. 54, Sect. 1.
Horne *vs.* Haverhill, 110 Mass., 527.
Pettengill *vs.* Porter, 3 Allen, 349.

And we find as facts that the boundaries of the landing and the way from it to the watering-place were made certain by record in 1743, as follows: "The said way to be left as follows, viz.: On the Bank next the River there the way to be four rods and three paces wide (this width reserved for accommodating landing at the River), then said way slants off gradually till it comes to one rod and a half, and so the remainder of the way against said piece of land" (the town marsh) "to be left one rod and a half wide." Town Records (Watertown), Book 4, pp. 255–258; that for the rest of the way from the watering-place to Mt. Auburn street there are and have been, for more than twenty years, fences fronting upon and against it, that fix its true boundary.

As to discontinuance or abandonment of the way or landing: We believe the law to be, that neither a city nor town, nor county commissioners, have authority to discontinue a public landing; but such authority rests only in the Legislature;

Com. *vs.* Tucker, 2 Pick., 44;
Bennett *vs.* Clemence, 6 Allen, 10;
Note to Com. *vs.* Roxbury, 9 Gray, 527;

that acts, which might have the effect to discontinue a public way, have not such effect "if the way leads to a public landing,

and is necessary to furnish access to it, or can reasonably be considered as appurtenant to it, as a landing for the use of the public;"

Bennett *vs.* Clemence, 6 Allen, 10;

that a discontinuance does not arise by mere non-user;

Jamaica Pond Aq. Corp. *vs.* Chandler, 121 Mass., 3;
White *vs.* Crawford, 10 Mass., 183;
Dana *vs.* Valentine, 5 Met., 8;

that while a discontinuance may be established by proof that a way has been shut up and the land enclosed by permanent fences, and occupied or improved for purposes inconsistent with its use as a public way for a long series of years, by continuous acts of successive owners of an adjoining close;

Holt *vs.* Sargent, 15 Gray, 97;

yet such adverse possession must be long, continual, peaceable, and by acts unequivocal in their character;

Thomas *vs.* Marshfield, 13 Pick., 240–248;

and even then might not defeat the public use of a way leading to a public landing;

Bennett *vs.* Clemence, *supra;*

that maintaining a fence across a way, but with a gate or bars through which the public may pass, however long continued, does not establish a prescriptive right against the public. In a case of this nature our Court has said: "The erection of a gate across the way near the county road did not essentially obstruct the use of it by the public. Such erections were not infrequent in the early settlement of the country, and are in many instances kept up to the present day even across county roads leading through meadows . . . The way still remained a public way;"

Wilde, J., Thomas *vs.* Marshfield, 13 Pick., 249;

that while maintaining a fence for forty years within the limits of a highway under a claim of right gives to the owner an absolute right, under the statute of this Commonwealth, to continue it there, as against the public;

Cutter *vs.* Cambridge, 6 Allen, 10;

yet this statute applies only to a fence fronting upon or against a highway, and not to one that cuts it off.

Pub. Stat., Chap. 54, Sect. 1.

And we find as facts (1.) That the landing is a public landing, and has never been discontinued by legislative authority, nor by any official act of the town or city of Cambridge. (2.) That the way leads to it, is necessary to furnish access to it, and can reasonably be considered as appurtenant to it. (3.) That the way was used by the public in 1867, and since; that there was some evidence of such use for many years preceding 1867, and no evidence that for any twenty consecutive years it had not been so used. (4.) That the acts tending to show a possession of said way adverse to the public rights are of uncertain character and duration, and do not establish such adverse possession. They consist of the erection of three fences, having gates or bars, across said way, — one at its entrance, thirty-four feet distant from the corner of the building of the marble works, which was erected two or three years ago, and has a wide gate that has constantly been left open; one about 100 feet further down the way, at the easterly bound of the Hayes estate, which was erected about 1877, and removed about 1880, also having a gate. Below both these fences are houses, to which the only access is the way, which has been used as such for many years. Neither of these fences can in any way affect the rights of the public. The third fence across the way is at the easterly bound of the watering-place, and also has a gate; the fence is evidently old, but is believed not to have been maintained for any twenty consecutive years to the exclusion of the public.

We find that there have not been, for a long series of years, continuous acts of successive owners of any adjoining close inconsistent with the use of the way as a public way; we, therefore, find that the rights of the public in said landing and highway have not been abandoned or lost by any adverse possession.

The only claim adverse to the rights of the public in said way and landing, and known to us, is made by Mr. Jos. G. Coolidge, the owner of three adjoining closes (Lots 1, 4, 5), and part owner of a fourth (Lot 6). Prevented by sickness from attendance on the committee, in a letter to the chairman

he has stated his claim. He seems to base it on his title-deeds, and speaks of the way as a proprietor's way, but not open or public. These deeds have already been mentioned. In all of them the rights of the public in the way are recognized, either by making the way a bound of the land conveyed, or reserving said rights of the public in it. His title to Lot 1 is by deed of Parker, June 8, 1861 (B. 875, p. 89), which bounds this land "southerly and westerly on common land belonging to the City of Cambridge"; to Lot 4 by deed of Wyeth, Nov. 18, 1867 (B. 1030, p. 165), which expressly reserves any right the public may have in the landing or way leading to it; to Lot 5 by deed of Parker above-mentioned, which bounds this land "north-easterly by an ancient town road leading to the wharf or landing place by or on Charles River"; to Lot 6, as one of the heirs of Josiah Coolidge, whose title-deed from Melville, March 19, 1821 (B. 236, p. 422), bounds this land on the way, describing it as "the road leading from Oliver's wharf, so called, to Watertown." We cannot conceive it to be possible that by such record title Mr. Coolidge has acquired any rights in said way or landing; nor do we think, for reasons already given, that he has acquired by adverse possession these rights, recognized and excepted as public rights in all his title-deeds.

Finding that said way is a public highway, believing it to be of much importance and value to the city, and recognizing that the city is to-day liable for its care and repair, we recommend that the city at once again assert its possession, and remove any fences or other obstructions in or upon it that interfere with the rights of the public in it. To this end we report the accompanying order; and we further recommend, that, as soon as practicable, the city put said way in a condition safe and convenient for travellers.

For the Committee,

WM. E. RUSSELL, *Chairman.*

Ordered, That the Committee on Roads and Bridges be and are hereby authorized and directed, in the name and in behalf of the City of Cambridge, to enter upon the way leading from Mt. Auburn street to Gerry's landing, so called, and to remove any and all fences or other obstructions in or upon it.

ORDINANCES

PASSED SINCE THE REVISION OF THE ORDINANCES.

An Ordinance in Relation to the Salary of the City Physician.

SECTION 1. From and after the first Monday of January, 1880, the salary of the City Physician shall be at the rate of $1,000 per annum.

SECT. 2. So much of Sect. 1 of Chap. 27 of the Revised Ordinances as is inconsistent herewith is hereby repealed.

[*Adopted March* 3, 1880.]

An Ordinance in Amendment of the Thirty-sixth Chapter of the Revised Ordinances.

SECT. 27 of Chap. 36 of the Revised Ordinances is hereby amended by prefixing to the words in said section the following words: "No person shall swim or bathe, or permit any animal under his care to swim or bathe, in Fresh Pond."

[*Adopted June* 2, 1880.]

An Ordinance establishing the Salary of the Inspector of Vinegar.

SECTION 1. The salary of the Inspector of Vinegar shall be at the rate of $175 per annum.

SECT. 2. This ordinance shall take effect upon its passage.

[*Adopted Nov.* 3, 1880.]

An Ordinance in Amendment of an Ordinance in Relation to Accounts and Finance.

Chap. 6 of the Revised Ordinances is hereby amended by adding at the end of Sect. 24 the words: "The Committee on Finance shall employ such clerks, permanent and temporary, as may be necessary in the different departments. The duties and compensation of such clerks shall be determined by said committee, subject, however, to change at any time by order of the City Council. No head of a department shall employ any extra clerical assistance in behalf of the city without having first obtained the consent of the Committee on Finance."

[*Adopted Nov.* 3, 1880.]

An Ordinance in Amendment of an Ordinance in Relation to the Cambridge Public Library.

Chapter 7 of the Revised Ordinances is hereby amended by striking out the second section thereof, and inserting in its place the following: —

"SECT. 2. The care, superintendence, and management of said library shall be vested in a Board of Trustees, to consist of one member of the Board of Aldermen, one member of the Common Council, and five citizens at large, one of whom shall hold office for one year, one for two years, one for three years, one for four years, and one for five years, their several terms of office to be determined by lot, the same to be chosen in the month of January next; and annually thereafter in the month of January one citizen at large, whose term of office shall be for five years from the third Monday in said January, unless sooner removed."

Also, in the third section, by striking out the word "three" in the fifth line thereof, and substituting therefor the word "five," relating to the term of office of the trustees.

Also, by striking out the fourth section, and inserting in place thereof the following: —

"SECT. 4. Said trustees may choose from their number a chairman and secretary; they shall choose, annually, in the month of January, a suitable person to be librarian, who shall be removable at the pleasure of the board, and shall receive such compensation as the trustees may from time to time determine."

The foregoing amendments shall take effect on the first Monday in the month of January, 1881, except that the trustees heretofore elected shall hold office until their successors are chosen and qualified.

[*Adopted Nov.* 17, 1880.]

An Ordinance in Amendment of an Ordinance in Relation to Sinking-Funds.

Chapter 34 of the Revised Ordinances is hereby amended by striking out the last five lines of Sect. 4, and inserting in place thereof the following words: —

"And whenever any payment is so made before the thirtieth day of November interest shall be paid thereon by the Commissioners of the Sinking-Funds from the time of said payment until said thirtieth day of November, at such rates as the Committee on Finance shall from time to time determine."

[*Adopted Nov.* 17, 1880.]

An Ordinance in Amendment of an Ordinance in Relation to Accounts and Finance.

Chapter 1 of the Revised Ordinances is hereby amended by inserting in the eighth line of the seventh section thereof, after the word "repair,"

the words "and shade trees and public grounds"; also, in the fourteenth line of the same section, by striking out the words "shade trees and public grounds."

[*Adopted Nov.* 17, 1880.]

An Ordinance in Relation to the Compensation of the Assistant City Clerk.

Chapter 27 of the Revised Ordinances is hereby amended, as follows, viz.: —

"The salary of the Assistant City Clerk shall be twelve hundred dollars per annum, to date from Jan. 1, 1881."

[*Adopted March* 23, 1881.]

An Ordinance in Amendment of the Ordinance in Relation to the Water Works.

Sect. 25 of Chapter 39 of the Revised Ordinances is hereby amended by striking out the word "thirty," in the second line of the second paragraph, and inserting in place thereof the word "fifteen."

[*Adopted May* 18, 1881.]

An Ordinance in Amendment of an Ordinance in Relation to Streets.

Chapter 36 of the Revised Ordinances is hereby amended by adding, at the end of Section 26, the following: —

"Whoever shall be found in possession of a club or bludgeon, on any street, park, or way, with intent to use the same in sports, sham-fights, or strife, or to intimidate persons or horses, shall be fined not less than one dollar nor more than twenty dollars.

"Whoever shall be found in possession of toy-pistols, crotches, rubber slings, or other devices for throwing missiles of any kind, with intent to use the same to the injury of persons or property, or to the annoyance or discomfort of any person, upon any street, park, or way, shall be fined not less than one dollar nor more than twenty dollars."

[*Adopted Dec.* 7, 1881.]

An Ordinance in Amendment of an Ordinance in Relation to Streets.

Chapter 36 of the Revised City Ordinances is hereby amended as follows in Section 14, by inserting in the fifth line, after the word "aldermen," the words, "or some person by them authorized for that purpose."

Also, in Section 15, by inserting in the first line, after the word "aldermen," the words, "or some person by them authorized for that purpose."

[*Adopted Dec.* 28, 1881.]

An Ordinance in Amendment of an Ordinance in Relation to Sewers.

Sections 9 and 10 of Chapter 32 of the Revised City Ordinances are hereby repealed, the same being in relation to house drainage.

Section 12 of Chapter 32 of the Revised City Ordinances is hereby amended by striking out of the first line thereof the words, "and catch-basins."

[*Adopted Dec.* 28, 1881.]

An Ordinance in Amendment of an Ordinance in Relation to the Fire Department.

Chapter 16 of the Revised Ordinances is hereby amended by striking out the second section thereof, and inserting in its place the following: —

"SECT. 2. In the month of April, in the year eighteen hundred and eighty-two, there shall be appointed by the Mayor, with the approval of the Board of Aldermen, and the concurrence of the Common Council, — or, in default thereof, afterward, by a concurrent vote of the City Council, either branch acting first, — a chief engineer and three assistant engineers, who shall hold their offices until removed by the City Council, and until others are elected in their places. Whenever a vacancy occurs in either of the offices named herein the same shall be filled forthwith in the same manner as herein before prescribed."

Also, by striking out the fifteenth section, and inserting in its place the following: —

"SECT. 15. The Mayor and Aldermen shall, in the month of January, in the year eighteen hundred and eighty-two, and whenever vacancies occur, appoint the several engine, hose, and hook and ladder companies, whose term of service shall continue until the respective appointees are removed by the Mayor and Aldermen, and others appointed in their places; and the members of said companies shall receive a warrant substantially like that prescribed for the engineers."

[*Adopted Dec.* 28, 1881.]

An Ordinance in Amendment of an Ordinance in Relation to Salaries.

Section 1 of Chapter 27 of the Revised Ordinances is so amended that from the first day of February, 1882, the compensation of members of the Fire Department shall be as follows: —

Chief Engineer, per year, $1,200.

[*Adopted April* 5, 1882.]

An Ordinance in Relation to the Compensation of the Clerk of the Board of Engineers of the Fire Department.

The compensation of the Clerk of the Board of Engineers of the Fire Department shall be at the rate of $25 per annum; such rate to take effect as of Jan. 1, 1882.

[*Adopted April* 5, 1882.]

An Ordinance in Amendment of an Ordinance in Relation to Water Works.

Section 24 of Chapter 39 of the Revised Ordinances is hereby amended by adding after the word "follows," at the end of the second paragraph, the words "*provided, however*, that the charge shall not be less than ten dollars for any one year; and *provided, further*, that when the water used by any one taker shall amount to more than five million gallons in any one year commencing with the first day of July, then the charge shall be at the rate of one cent for each one hundred gallons of the excess over that quantity."

[*Adopted April* 12, 1882.]

An Ordinance in Relation to the Salary of the Superintendent of Lamps.

Chapter 27 of the Revised Ordinances is hereby amended as follows: —

The salary of the Superintendent of Lamps shall be five hundred dollars per annum, to date from June 1, 1882.

[*Adopted June* 28, 1882.]

An Ordinance in Amendment of an Ordinance in Relation to Streets.

Section 25 of Chapter 36 of the Revised Ordinances is hereby amended by striking out the entire section, and inserting in place thereof the following: —

The owner or tenant of any land abutting on any street, lane, court, square, or public place, where there is any footway or sidewalk, shall cause the snow falling on said footway or sidewalk in front of his said land, whether from any building or otherwise, to be removed therefrom within twenty-four hours after the same ceases to fall; and shall cause the ice which incumbers such footway or sidewalk to be removed or covered with sand or other suitable substance, so as to make the footway or sidewalk safe and convenient for travel. Any person failing to do so shall be fined not less than two nor more than twenty dollars.

[*Adopted July* 19, 1882.]

An Ordinance in Relation to the Boundaries of the several Wards, and the Number of Members of the Common Council to be elected in each Ward.

SECTION 1. The boundaries of the several wards shall, until the month of October, in the year eighteen hundred and eighty-seven, continue the same as now established, with the following exceptions: —

So much of the territory annexed from the town of Belmont as lies south of a line through the centre of Concord avenue shall constitute a part of Ward One; and so much of said territory as lies north of such line shall constitute a part of Ward Five.

SECT. 2. The members of the Common Council shall be apportioned as follows: Ward One shall elect FOUR; Ward Two shall elect SIX; Ward Three shall elect FOUR; Ward Four shall elect FOUR; Ward Five shall elect TWO.

[*Adopted Oct.* 25, 1882.]

An Ordinance substituting the words "Third District Court of Eastern Middlesex" for the words "Police Court."

Wherever, in any ordinance of the city, the words "Police Court" occur, they are hereby stricken out, and the words "Third District Court of Eastern Middlesex" are hereby inserted in place thereof.

[*Adopted Nov.* 29, 1882.]

An Ordinance in Amendment of an Ordinance in Relation to Sewers.

Section 1 of Chapter 32 of the Revised Ordinances is hereby amended by adding at the end thereof the words: —

"Nor until the owner shall have paid to the city, as a charge for entering the public sewer, such a sum of money as the Mayor and Aldermen shall order; said sum to be not less than the amount which would be assessed upon the lands of such owner, upon the basis of the present ordinance in the case of a public sewer, less such an allowance for the cost of the private sewer as the City Engineer shall certify to the Mayor and Aldermen is reasonable."

[*Adopted Dec.* 27, 1882.]

An Ordinance in Amendment of an Ordinance in Relation to the City Physician.

Chapter 25 of the Revised Ordinances is hereby amended as follows: —

By striking out the last twenty words of the first section, providing a salary for the City Physician.

Also, by striking out the second section, and inserting in place thereof the following: —

"SECT. 2. There shall also be chosen annually, in the month of April, by the Overseers of the Poor, subject to the approval of the Mayor and Aldermen, a physician, to be called the Assistant City Physician, who, under the direction of the Overseers of the Poor, shall act as the almshouse physician, and shall visit and prescribe for the sick poor in the city, outside of the almshouse. His salary shall be fixed by the City Council."

Also, by striking out the word "He," at the beginning of the third section, and inserting in place thereof the words, "The Assistant City Physician"; and the word "He," at the beginning of each subsequent section, shall be held to designate the Assistant City Physician only.

Also, by striking out the words "City Council" in the seventh section, and inserting in place thereof the words, "Overseers of the Poor."

Also, by striking out the eighth section.

[*Adopted Dec.* 27, 1882.]

An Ordinance in Amendment of an Ordinance in Relation to the Pay of City Laborers.

Section 11 of Chapter 1 of the Revised Ordinances is hereby amended by adding at the end thereof the words: —

"And provided further, that he shall, without action by the committee aforesaid, draw his order for the semi-monthly payment of the wages of the laborers employed in the Street Department; the amounts of such wages to be entered upon pay-rolls which shall be certified as correct by a majority of the Joint Standing Committee on Roads and Bridges; such amounts to be within the appropriation to which the same shall be chargeable."

[*Adopted Feb.* 19, 1883.]

An Ordinance in Relation to the Salaries of Certain City Officers.

SECTION 1. From and after the first day of February of the current year the salaries of the City Officers hereinafter named shall be as follows: —

Auditor of Accounts	$1,800 per year.
Treasurer of the Commissioners of the Sinking-Funds,	300 "
Clerk of Committees	2,000 "

SECT. 2. All Ordinances and parts of Ordinances inconsistent herewith are hereby repealed.

[*Adopted March* 19, 1883.]

An Ordinance in Relation to the Compensation of Members of the Fire Department.

SECT. 1. From and after February 1, 1883, the compensation of the members of the Fire Department shall be as follows: —

CALL MEN.

Assistant Engineers, each	$325	per year.
Foremen of Engine and Hook and Ladder Companies	194	"
Assistant Foremen of Engine and Hook and Ladder Companies	183	"
Members of Engine and Hook and Ladder Companies	172	"

PERMANENT MEN.

Engineers of Steam Fire-Engines	$90	per month.
Drivers of Steam Fire-Engines, Hook and Ladder Trucks, and Chemical Engine	75	"
Engineer of Chemical Engine	75	"
Fire-Alarm Telegraph Operator	90	"
Assistant " "	75	"

SECT 2. All Ordinances and parts of Ordinances inconsistent herewith are hereby repealed.

[*Adopted March* 28, 1883.]

An Ordinance in Relation to the Salary of the City Messenger.

From and after the first day of April of the current year the salary of the City Messenger shall be at the rate of Fifteen Hundred Dollars a year.

[*Adopted April* 9, 1883.]

An Ordinance in Amendment of an Ordinance in Relation to Water Works.

Section 25 of Chapter 39 of the Revised Ordinances is hereby amended, by striking out the word "fifteen" in the second paragraph, and inserting in place thereof the word "ten"; also, by inserting after the word "hydrant" the words "or reservoir."

[*Adopted April* 9, 1883.]

An Ordinance in Amendment of an Ordinance in Relation to Accounts and Finance.

Section 1 of Chapter 1 of the Revised City Ordinances, relating to the Auditor of Accounts, is hereby amended by inserting after the end of the first sentence, the following: —

"He shall give a bond in such a form as the City Solicitor shall approve, with sufficient sureties, to be approved by the Mayor and Aldermen, in a sum not less than ten thousand dollars, which bond shall be executed, approved, and delivered before he enters upon the duties of his office, and within ten days after his election. Should he fail to give such bond within the time herein required the election shall be void, and a new election shall be had forthwith. In case of the death or insolvency of any of the sureties on any bond so given, the Auditor shall immediately give a new

bond, with sufficient sureties, as herein before provided; and, if he fails to give such new bond within a reasonable time after notice to do so, it shall be sufficient cause for his removal from office.

Provided, however, that the first bond herein required shall be filed within ten days from the passage of this Ordinance."

[*Adopted April* 9, 1883.]

An Ordinance in relation to Uniforms for the Permanent Men of the Fire Department.

SECTION 1. The permanent men of the Fire Department shall be required to furnish themselves with a suitable uniform, the same to consist of a cap, overcoat, undercoat, vest, and pantaloons, and to be of such materials, quality of goods, and pattern, as the Mayor and Aldermen may prescribe.

SECT. 2. This Ordinance shall take effect upon the first day of May, 1883.

[*Adopted April* 28, 1883.]

An Ordinance in Relation to the Compensation of Members of the Police Force.

From and after the 25th day of March, 1883, the compensation of members of the Police Force hereinafter named shall be as follows: —

Captains	$1,150 per year.
Sergeants	$2.87½ per day.
Policemen, after two years of service	$2.75 per day.
Policemen, until two years of service	$2.50 per day.

[*Adopted May* 14, 1883.]

An Ordinance repealing an Ordinance in Relation to the Salary of the City Physician.

An Ordinance entitled "An Ordinance in Relation to the Salary of the City Physician," adopted March 3d, 1880, is hereby repealed.

[*Adopted June* 11, 1883.]

An Ordinance in Amendment of an Ordinance in Relation to Accounts and Finance.

Section 11 of Chapter 1 of the Revised Ordinances, as amended February 19th, 1883, is hereby further amended by adding at the end of such amendment the words: —

"And *provided further*, that he shall, without action of the committee aforesaid, draw his order for the semi-monthly payment of the wages of the laborers employed upon the city ledge and house-offal wagons, and in

the sewer department, the amounts of such wages to be entered upon pay-rolls, which shall be certified as correct, as follows: those of the laborers upon the city ledge and house-offal wagons, by a majority of the board of overseers of the poor, and those of the laborers in the sewer department by a majority of the committee on sewers, such amounts to be within the appropriation to which the same shall be chargeable."

[*Adopted July* 30, 1883.]

An Ordinance in Relation to the Salaries of the Assistant Assessors.

The salaries of the Assistant Assessors shall be at the rate of four dollars per day, for services rendered; the same to take effect as of the year 1883.

[*Adopted Sept.* 17, 1883.]

MAYORS

OF

THE CITY OF CAMBRIDGE,

FROM 1846 TO 1884.

James D. Green	from May,	1846,	to April,	1848.
Sidney Willard	" April,	1848,	to April,	1851.
George Stevens	" April,	1851,	to April,	1853.
James D. Green	" April,	1853,	to April,	1854.
[1] Abraham Edwards . .	" April,	1854,	to January,	1855.
Zebina L. Raymond . . .	" January,	1855,	to January,	1856.
John Sargent	" January,	1856,	to January,	1860.
[2] James D. Green . . .	" January,	1860,	to July 24,	1861.
[3] Charles Theo. Russell .	" July 31,	1861,	to January,	1863.
George C. Richardson . .	" January,	1863,	to January,	1864.
Zebina L. Raymond . . .	" January,	1864,	to January,	1865.
J. Warren Merrill . . .	" January,	1865,	to January,	1867.
Ezra Parmenter	" January,	1867,	to January,	1868.
Charles H. Saunders . .	" January,	1868,	to January,	1870.
Hamlin R. Harding . . .	" January,	1870,	to January,	1872.
Henry O. Houghton . .	" January,	1872,	to January,	1873.
Isaac Bradford	" January,	1873,	to January,	1877.
Frank A. Allen	" January,	1877,	to January,	1878.
Samuel L. Montague . .	" January,	1878,	to January,	1880.
James M. W. Hall . . .	" January,	1880,	to January,	1881.
James A. Fox	" January,	1881.	Now in office.	

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[1] Municipal year changed.

[2] Resigned.

[3] First elected by the City Council.

GOVERNMENT

OF

THE CITY OF CAMBRIDGE.

1884.

MAYOR.

HON. JAMES A. FOX.

ALDERMEN.

ALPHEUS B. ALGER,
STEPHEN ANDERSON,
JOSEPH COGAN,
GEORGE W. GALE,
P. ALLEN LINDSEY,
NATHAN C. LOMBARD,
SAMUEL W. MCDANIEL,
MALCOLM E. RIDEOUT,
WILLIAM E. RUSSELL,
SOLOMON S. SLEEPER.

Aldermen, by Wards.

Ward 1. Aldermen MCDANIEL and RUSSELL.
" 2. " GALE, LINDSEY, and LOMBARD.
" 3. " ANDERSON and COGAN.
" 4. Alderman RIDEOUT.
" 5. Aldermen ALGER and SLEEPER.

Clerk.

JUSTIN A. JACOBS.

COMMON COUNCIL.

GEORGE H. HOWARD, *President.*

CORNELIUS G. H. BENNINK,	WILLIAM C. LANE,
WILLIAM F. BRADBURY,	JOHN J. LOAN,
DAVID F. BURNS,	JOHN LOCKE,
EDGAR R. CHAMPLIN,	WILLIAM MILLIGAN,
HORACE E. CLAYTON,	TIMOTHY MCCARTHY,
JAMES E. DOYLE,	JOHN P. MCCORMICK,
CHARLES S. HANKS,	WILLIAM T. NEILON,
CHARLES W. HENDERSON,	GEORGE A. SAWYER,
GEORGE H. HOWARD,	ELBRIDGE G. STEVENS,
WARREN IVERS,	PATRICK J. WHITE.

Common Council, by Wards.

Ward 1. Messrs. BRADBURY, BURNS, HANKS, and IVERS.
" 2. " BENNINK, CLAYTON, LANE, LOAN, MILLIGAN, and WHITE.
" 3. " DOYLE, HOWARD, MCCORMICK, and NEILON.
" 4. " CHAMPLIN, HENDERSON, LOCKE, and STEVENS.
" 5. " MCCARTHY and SAWYER.

Clerk.

WALTER W. PIKE.

Page.

WILLIAM PEARSON.

CITY CLERK.

JUSTIN A. JACOBS.

ASSISTANT CITY CLERK.

WALTER W. PIKE.

CITY MESSENGER.

FRANCIS L. PRATT.

COMMITTEES OF THE CITY COUNCIL.

Joint Standing Committees.

On Finance.

The Mayor.

Common Council.
The President,
Cornelius G. H. Bennink,
William T. Neilon,
William F. Bradbury,

Aldermen.
Solomon S. Sleeper,
Samuel W. McDaniel.

Timothy McCarthy,
Elbridge G. Stevens.

On Public Instruction.

Aldermen.
Joseph Cogan,
George W. Gale.

Common Council.
The President,
William F. Bradbury,
Edgar R. Champlin,
George A. Sawyer.

On Ordinances.

Aldermen.
Alpheus B. Alger,
Malcolm E. Rideout.

Common Council.
Edgar R. Champlin,
William Milligan,
Horace E. Clayton.

On Accounts.

Aldermen.
Solomon S. Sleeper,
Nathan C. Lombard.

Common Council.
John P. McCormick,
William C. Lane,
William F. Bradbury.

On Public Property.

Aldermen.
George W. Gale,
Samuel W. McDaniel.

Common Council.
James E. Doyle,
Timothy McCarthy,
Elbridge G. Stevens.

On the Almshouse.

Aldermen.
Solomon S. Sleeper,
Stephen Anderson.

Common Council.
Warren Ivers,
James E. Doyle,
Patrick J. White.

On Health.

Aldermen.	Common Council.
George W. Gale,	Charles W. Henderson,
Stephen Anderson.	Warren Ivers,
	Timothy McCarthy.

On Roads and Bridges.

Aldermen.	Common Council.
Malcolm E. Rideout,	Charles W. Henderson,
Stephen Anderson.	David F. Burns,
	Patrick J. White.

On Fuel.

Aldermen.	Common Council.
Solomon S. Sleeper,	William C. Lane,
Joseph Cogan.	John Locke,
	Charles S. Hanks.

On Lamps.

Aldermen.	Common Council.
Stephen Anderson,	Timothy McCarthy,
Samuel W. McDaniel.	John J. Loan,
	David F. Burns.

On Printing.

Aldermen.	Common Council.
P. Allen Lindsey,	John P. McCormick,
Alpheus B. Alger.	Cornelius G. H. Bennink,
	Warren Ivers.

On the Fire Department.

Aldermen.	Common Council.
Stephen Anderson,	Charles W. Henderson,
P. Allen Lindsey.	James E. Doyle,
	Patrick J. White.

On City Engineering.

Aldermen.	Common Council.
Nathan C. Lombard,	John Locke,
William E. Russell.	Horace E. Clayton,
	William Milligan.

On Assessors' Department.

Alderman.	Common Council.
Malcolm E. Rideout.	William T. Neilon,
	Charles S. Hanks.

On Claims.

	Common Council.
The Mayor.	The President,
	Cornelius G. H. Bennink,
Aldermen.	William T. Neilon,
Joseph Cogan,	Charles S. Hanks,
William E. Russell,	Edgar R. Champlin,
Alpheus B. Alger.	George A. Sawyer.

Special Committee of Board of Aldermen.

On Soldiers' Aid.

P. Allen Lindsey, Joseph Cogan,
William E. Russell, Malcolm E. Rideout,
Alpheus B. Alger.

Standing Committees of Board of Mayor and Aldermen.

On Police.

The Mayor, Stephen Anderson,
P. Allen Lindsey, Alpheus B. Alger.

On the Fire Department.

Stephen Anderson, P. Allen Lindsey,
Samuel W. McDaniel.

On Roads and Bridges.

Malcolm E. Rideout, Stephen Anderson,
George W. Gale.

On Sewers and Drains.

Solomon S. Sleeper, Joseph Cogan,
Nathan C. Lombard.

On Licenses.

Stephen Anderson, P. Allen Lindsey,
Alpheus B. Alger.

On Health.

George W. Gale, Solomon S. Sleeper,
Nathan C. Lombard.

On Bonds.

Joseph Cogan, Solomon S. Sleeper,
Malcolm E. Rideout.

On Claims.

The Mayor, William E. Russell,
Joseph Cogan, Alpheus B. Alger.

Standing Committees of the Common Council.

On Elections and Returns.

David F. Burns, John P. McCormick,
Elbridge G. Stevens.

On Bills in the Second Reading.

William C. Lane, William Milligan,
Charles W. Henderson.

On Enrolled Ordinances.

George A. Sawyer. John J. Loan,
John P. McCormick.

Clerk of Committees.

John McDuffie.

Board of Health.

Henry P. Walcott, *City Physician.*
George F. Piper, Daniel H. Thurston.

Health Officer.

Alfred F. Holt, M.D.

Assistant City Physician.

Lewis L. Bryant, M.D.

Health Officers.

George H. Copeland, Mark J. Folsom,
Lothrop J. Cloyes, John F. Murray.

Surveyors of Highways.

The same persons who compose the Board of Mayor and Aldermen.

Auditor of Accounts.

Franklin Perrin.

Treasurer.

William W. Dallinger.

Assessors.

Joshua G. Gooch, Artemas Z. Brown,
Andrew J. Green.

Assistant Assessors.

Charles H. Hunnewell, George L. Mitchell,
Mason Davis, Joseph Whittemore,
William E. Hutchins.

School Committee.

James A. Fox, Mayor, *ex officio*, *Chairman*.

Ward I.

John L. Hildreth, Francis Flint.
Garrett E. Nagle.

Ward II.

Henry N. Tilton, Phebe M. Kendall.
Benjamin F. Tweed.

Ward III.

William E. Doyle, Freeman Hunt,
Edward B. Malley.

Ward IV.

Asa P. Morse, Sarah S. Jacobs.
Moses D. Church.

Ward V.

Michael Corcoran, Albert M. Barnes,
William A. Start.

Secretary.

W. W. Wellington.

Superintendent of Schools.

Francis Cogswell.

Overseers of the Poor.

The MAYOR, *ex officio*, *Chairman*.

Sumner Albee. George D. Chamberlain.
Jonas C. Wellington. Charles E. Vaughan.
Knowlton S. Chaffee.

Secretary.

David P. Muzzey.

Visitor.

Vespasian Danforth.

Warden of the Almshouse.

William E. Hough.

Physician of the Almshouse.

Lewis L. Bryant,
(*Assistant City Physician*).

Cambridge Cemetery.

Commissioners.

The MAYOR, *ex officio.*

George T. Gale. Curtis Davis.
Silas B. Buck. John M. Tyler.
George S. Saunders. John F. O'Brien.

Superintendent.

James K. Farwell.

Trustees of Cambridge Public Library.

Alderman. *Common Council.*

Samuel W. McDaniel. Cornelius G. H. Bennink.

Citizens at Large.

John S. March. Samuel L. Montague.
Hersey B. Goodwin. Jabez A. Sawyer.
Joseph J. Kelley.

Librarian. *Secretary.*

Almira L. Hayward. Cornelius G. H. Bennink.

Cambridge Water Board.

The MAYOR, and President of the Common Council, *ex officio.*

Leander M. Hannum. James M. W. Hall.
Knowlton S. Chaffee. Chester W. Kingsley, *President.*
Henry L. Eustis.

Clerk.

Justin A. Jacobs.

Superintendent of Water Works.

Hiram Nevons.

Water Registrar.

J. Warren Cotton.

Assistant Water Registrar.

Walter H. Harding.

Trustees of Sinking-Fund of Water Loan.

The MAYOR, City Treasurer, and President of the Common Council.

Commissioners on Sinking-Funds of the City.

John M. Tyler.
Robert Douglass.
Frank A. Allen.
Joseph A. Holmes.
Charles H. Saunders.
Knowlton S. Chaffee.

Trustees of the Sanders Temperance Fund.

The MAYOR, and President of the Common Council, *ex officio*.

Alderman.
Nathan C. Lombard.

Common Council.
Charles W. Henderson.
John P. McCormick.

Trustees of the Bridge Charitable Fund.

The MAYOR, and President of the Common Council, *ex officio*.

Alderman.
George W. Gale.

Trustees of the Dowse Institute.

The MAYOR, and President of the Common Council, *ex officio*.
William W. Wellington. Willard A. Bullard.
Frank A. Allen.

Senator in General Court.

Henry H. Gilmore.

Representatives in General Court.

Chester W. Kingsley. Lewis W. Howes.
William A. Bancroft. George C. Bent.
George D. Chamberlain. Jeremiah W. Coveney.

Police Court.

Standing Justice.

William H. Orcutt.

Special Justices.

Samuel W. McDaniel. Jabez Fox.

Clerk.

Emerson W. Law.

City Solicitor.

John W. Hammond.

City Engineer.

William S. Barbour.

Commissioner on West Boston, Craigie's, and Prison Point Bridges.

William J. Marvin.

Superintendent of Streets.

John McSorley.

Superintendent of Lamps.

Benjamin F. Nourse.

Board of Engineers.

Chief Engineer.

Thomas J. Casey.

Assistant Engineers.

First Assistant	Nathaniel W. Bunker.
Second Assistant	Charles W. Brackett.
Third Assistant	William B. Cade.

Secretary of the Board.

Nathaniel W. Bunker.

Police Department.

Chief of Police.

George H. Copeland.

Captains of Police.

District I.

Lothrop J. Cloyes.

District II.

Mark J. Folsom.

District III.

John F. Murray.

Sergeants of Police.

(With the numbers of their badges.)

No.		No.	
9	William F. Batchelder.	25	Thomas S. Hall.
4	Andrew Sproul.	58	Michael A. Dalton.
55	Frederick B. Pullen.	13	William Mullett.

Policemen.

(With the numbers of their badges.)

No.		No.	
59	James S. Alexander.	23	Denis Corcoran.
10	Benjamin F. Bridden.	20	Timothy Corcoran.
28	Edward F. Belcher.	29	Michael J. Conry.
53	Elbridge S. Blen.	56	John Coulter.
7	George T. Barrington.	35	George S. Dudley.
61	Edward Brady.	40	Patrick Doyle.
41	Daniel Callahan.	50	Thomas F. Dynan.

No.		No.	
32	Lawrence J. Ducey.	57	Hugh McNamee.
68	John W. Deehan.	43	James E. Murray.
12	Rufus S. Downe.	26	James McElroy.
15	Warren A. Eaton.	30	Matthew R. Moore.
8	Joseph H. Furbush.	39	Michael J. Nolan.
44	William Gallagher.	60	William Nickelson.
47	Robert T. Hixon.	52	Charles W. Priest.
19	Luther Hapgood.	18	Charles L. Pike.
49	Simon D. Hiscock.	62	Bernard J. Roper.
14	Benjamin F. Higgins.	67	Thomas F. Sullivan.
22	Moses W. Hooper.	65	John E. Shaughnessy.
51	Alonzo S. Harriman.	6	Leonard Shackford.
33	Amos Jones.	24	David A. Stevens.
11	Henry C. Jones.	46	Frank W. Scobey.
37	James M. Keaney.	63	John W. Skelley.
48	Thomas H. Lucy.	2	William Twist.
21	Cornelius A. Murphy.	34	James W. Wright.
66	James McChristal.	3	Orrin B. White.
27	George A. Marston.	54	John Wiley.
64	William H. McMenimen.	42	John H. Wells.

Policemen (without pay).

J. L. P. Ackers.	Edward J. Burns.
Horace A. Allyn.	Charles F. Bowman.
Mark H. Appleby.	Thomas J. Casey.
Frank E. Allard.	Charles S. Childs.
Fred. H. Balch.	John Coffee.
Thomas Briney.	Joseph Collins.
William H. Bates.	William Collins.
Charles Brousseau.	Moses M. Child.
Nathaniel W. Bunker.	Noah M. Cofran.
Ferdinand N. Buffum.	Charles Coy.
Frank E. Balch.	Lewis B. Chandler.
Joseph Beaubo.	Patrick Corcoran.
Charles W. Brackett.	Ambrose H. Clark.
Solomon M. Busnach.	John Collier.
Richard Balmer.	Andrew V. Cleaveland.
Samuel Busnach.	Martin C. Carr.

J. P. Carlon.
John A. Cunio.
James Doherty.
George W. Durgin.
James F. Dunn.
William H. Dodge.
Moses Dudley.
Vespasian Danforth.
Gilbert M. Davren.
Frank N. Danforth.
Thomas H. Eames.
George D. Eaton, Jr.
Frank A. Edson.
Henry L. Emerson.
John E. Fitzgerald.
G. C. W. Fuller.
James K. Farwell.
Dennis J. Fielding.
William Foster.
Michael Fitzpatrick.
Jeremiah D. Ford.
John Gorman.
Michael Ginty.
William H. Grieves.
Charles A. Gay.
William T. Gibson.
George W. Greenleaf.
Philip T. Greeley.
Richard J. Gearry.
Major Gaines.
Eli L. Goodrow.
Angus M. Hamilton.
Charles F. Hittinger.
John L. Harrington.
George H. Hastings.
Samuel F. Hunt.
Henry L. Hale.
Charles E. Hadcock.
Appleton Hubbard.
William Hunnewell.
William E. Hough.
Thomas M. Howard.
Martin J. Hannon.
Charles W. Jones.
James F. Jefferds.
Benjamin Kennard.
Barney King.
Roland Litchfield.
William O. Lowell.
Martin V. Langley.
James W. Lovering.
George B. Lothrop.
John Loughrey.
John Little.
Abiel E. Long.
Charles S. Lincoln.
John B. McGovern.
James H. McCarthy.
Patrick McCarthy.
Dennis Murphy.
John H. Menard.
Thomas Montgomery.
Francis M. Mason.
Patrick F. Murray.
Patrick Murphy.
Philip McGovern.
Robert McKillican.
Augustus W. Nelson.
Hiram Nevons.
William A. Norris.
George R. Oliver.
Francis A. Osborn.
John J. O'Brien.
Thomas F. O'Brien.
Linn B. Porter.
Thomas Preston.
Joseph A. Pike.
Thomas W. Penney.

Francis L. Pratt.
Eben Pratt.
William N. Porter.
Benjamin J. Pierce.
Lewis Pratt.
S. C. Redding.
John Riley.
P. H. Raymond.
Charles L. Russell.
John W. Richmond.
John J. Ryan.
John Ring.
George Smyth.
Joshua S. Sanborn.
Dennis H. Sullivan.
George F. Spencer.
Alex. F. Shepherd.
James T. Shaughnessy.
Charles H. Stetson.
John H. Steward.
Philip Sullivan.
Henry Smith.
George J. Sutton.
Richard Sullivan.
James W. Thompson.
William S. Wilson.
Edgar L. Worcester.
Edward M. Williams.
Michael J. Whalen.
George White.

Keeper of Lock-ups.

George H. Copeland.

Truant-Officers.

Moses M. Child.
John Collier.
Francis M. Mason.

Probation-Officer.

Frederick W. Hagar.

Constables.

William Twist.
John C. Burdakin.
Frederick A. Lull.
Thomas T. Ferguson.
Michael S. Busnach.
Charles J. Adams.
John L. Boynton.
Lothrop J. Cloyes.
Charles H. Hunnewell.
Appleton Hubbard.
Joseph Fox.
Fred. H. Seavey.
John F. Murray.
James I. Murphy.
John Lennon.
John R. Fairbairn.
Dennis D. McCarthy.
Mark J. Folsom.
John Good.
George H. Copeland.
Alfred F. Holt.
George T. Barrington.
Edward M. Williams.
Warren F. Spalding.

Superintendent of Burial-Ground in Ward I.

Benjamin F. Wyeth.

Undertakers.

Benjamin F. Wyeth.
Roland Litchfield.
Samuel F. Hunt.
Thomas Devens.
John W. Coveney.
Judson Litchfield.
William N. Mullins.
John J. Kelley.
James Kernan.
William Casey.
C. Henry Lockhart.
William A. Taylor.
Horace D. Litchfield.
James E. Rourke.
John J. Murphy.
William Ross.

Auctioneers.

Samuel F. Rugg.
Edward Burnham.
Enoch H. Wakefield.
Frederick A. Lull.
Ira Taylor.
William H. Brown.
Charles H. Young.
Daniel A. Buckley.
Edmund E. Sanborn.
John R. Fairbairn.
Jeremiah W. Coveney.
John Lennon.
John K. Abbott.
Joseph Heron.
Watson G. Cutter.

Fence-Viewers.

George B. Lothrop.
Abel Stevens.
Francis H. Stickney.

Field-Drivers.

James S. Alexander.
Benjamin F. Bridden.
Edward F. Belcher.
Elbridge S. Blen.
George T. Barrington.
Edward Brady.
Daniel Callahan.
Denis Corcoran.
Timothy Corcoran.
Michael J. Conry.
John Coulter.
George S. Dudley.

Patrick Doyle.
Thomas F. Dynan.
Lawrence J. Ducey.
John W. Deehan.
Rufus S. Downe.
Warren A. Eaton.
Joseph H. Furbush.
William Gallagher.
Robert T. Hixon.
Luther Hapgood.
Simon D. Hiscock.
Benjamin F. Higgins.
Moses W. Hooper.
Alonzo S. Harriman.
Amos Jones.
Henry C. Jones.
James M. Keaney.
Thomas H. Lucy.
Cornelius A. Murphy.
James McChristal.
George A. Marston.
William H. McMenimen.
Hugh McNamee.
James E. Murray.
James McElroy.
Matthew R. Moore.
Michael J. Nolan.
William Nickelson.
Charles W. Priest.
Charles L. Pike.
Bernard J. Roper.
Thomas F. Sullivan.
John E. Shaughnessy.
Andrew G. Smith.
Leonard Shackford.
David A. Stevens.
Frank W. Scobey.
John W. Skelley.
John B. Smithers.
William Twist.
James W. Wright.
Orrin B. White.
John H. Wells.
John Wiley.

Measurers of Wood and Bark.

John R. Taylor.
William H. Hood.
Herbert T. Lawrence.
Thomas H. Matthews.
Benjamin J. Hoyt.
J. Henry Wyman.
Joshua S. Sanborn.
Horace L. Porter.
Nathan L. Allen.

Pound-Keepers.

Elisha S. Woodard.
Thomas D. Cook.
William Twist.

Fish Officers.

Charles E. Raymond.
Linn B. Porter.
Dwight M. Turner.

Hay-Weighers.

Timothy Sullivan.
William H. Dodge.
Nathan L. Allen.
Joshua S. Sanborn.

Coal-Weighers.

James F. Jefferds.
Thomas H. Matthews.
John E. A. Mulliken.
Patrick Kelley.
George C. Gardiner.
Walter F. Grieves.
Frank Bailey.
Jones Valentine.
Alfred H. Wellington.
Joshua S. Sanborn.
Herbert T. Lawrence.
Horace L. Porter.
Silas E. Buck.
Ernest H. Wellington.
Edward W. Blake.

Weighers of Boilers and Heavy Machinery.

Joshua S. Sanborn.

Inspectors of Junk Shops.

Lothrop J. Cloyes.
John F. Murray.
Mark J. Folsom.
George H. Copeland.

Sealer of Weights and Measures.

Benjamin F. Nourse.

Deputy Sealer.

Conrad D. Kinnear.

Weighers.

Joseph W. Averill.
James H. Reardon.
Nathan H. Holbrook.
Henry Hooker.
Robert S. Paine.
Elisha S. Woodard.
George W. Wright.
Alvin M. Haines.
Isaac A. Chandler.
Charles F. Stafford.

Ira Doughty.
Henry James.
George W. Barnes.
John Reardon, Jr.
Joshua S. Sanborn.
Thomas Ralph.
Charles F. Hittinger.
Harry Hittinger.
Thomas H. Shea.
James W. Coleman.
John Guiney.
Leonard R. Bacon.

Inspector of Milk.

John H. Farrell.

Inspector of Vinegar.

John H. Farrell.

Surveyors of Mechanics' Work.

William S. Barbour.
Charles A. Mason.
John S. Pollard.
Arthur Hodges.

Measurers and Surveyors.

E. F. Young.
Henry L. Hale.

Inspector of Charcoal Baskets.

Benjamin F. Nourse.

Measurer of Grain.

Benjamin F. Nourse.

Ward Officers.

Ward I.

WARDEN.

Edmund Miles.

CLERK.

John W. Sanger.

INSPECTORS.

James A. Martin.
Samuel F. Rugg.
Lafayette G. Blair.

Ward II.

WARDEN.
Edward W. S. Jones.

CLERK.
Frank H. Teele.

INSPECTORS.
Harrison G. Wells.
Elmer H. Bright.
John F. Dardis.

Ward III.

WARDEN.
Daniel B. Shaughnessey.

CLERK.
Maurice F. Corkery.

INSPECTORS.
James B. McCloskey.
John J. Murphy.
Charles E. McCarthy.

Ward IV.

WARDEN.
Charles L. Russell.

CLERK.
J. St. Clair Whittemore.

INSPECTORS.
Theodore A. Neale.
John H. Corcoran.
Samuel D. Young.

Ward V.

WARDEN.
Joseph Newman.

CLERK.
Francis J. Mahaffy.

INSPECTORS.
Sylvanus G. Griffin.
Edgar H. Locke.
Walter Stimpson.

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